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MODERN TRAVEL

CHAPTER I

HUNTING MIGHTY GAME

Modern whaling is a new kind of whaling of only about fifty years' growth. It has grown up as the old styles went more or less out of practice.

A few sailing ships still prosecute the old style of sperm whaling south of the line, but the Greenland Right whale hunting has been almost entirely given up within the last few years, because the Right whale, or whalebone whale, *Balæna Mysticetus*, had become scarce and so wary that it could not be killed in sufficient numbers to pay expenses. This *Balæna*, or whalebone whale, has no fin on its back. A large Right whale, or Bowhead, as it is sometimes called, has nearly a ton of whalebone in its mouth, which a few years ago was worth about £1500 per ton; previously it was worth as much as £3000 per ton, so one good whale paid a trip. It was pursued from barques—sailing ships with auxiliary steam and screw, fifty men of a crew, and small boats, each manned with five men, with a harpoon gun in its bows, or merely a hand harpoon. When the harpoon was fired and fixed into the whale, it generally dived straight down, and when exhausted from want of air, came up and was despatched with lances or bombs from shoulder guns. These whales measured from forty to fifty-five feet.

The sperm, or cachalot, is valuable for its spermacetti oil, and for ambergris, a product found once in hundreds

of whales caught. It is a toothed whale and carries no whalebone.

But during the centuries these Right whales and sperm were being killed there were other larger and much more powerful whales, easily distinguished from the " Right whales " by the fin on their backs. These were to be found in all the oceans and were unattacked by men. They have only a little whalebone in their mouths, and were much too powerful to be killed by the old methods.

Now we can kill these big fellows. Captain Svend Foyn, a Norwegian, mastered them by developing a new harpoon. A big harpoon fired from a cannon, a heavy cable and a small steamer combined made the finner whales man's prey.

These *Balœnoptera*, averaging fifty to ninety feet, are fast swimmers and when harpooned go off at a great speed and require an immense harpoon to hold them, and when dead they sink, and their weight is sufficient to haul a string of small boats under the sea. To bring them to the surface a very powerful hawser is attached to the harpoon, and is wound up by a powerful steam winch on the ninety-foot steamer, which can be readily towed by the whale, but which is also sufficiently buoyant to pull them to the surface when they die and sink.

In order that a whale may not break this five-inch hawser (or five and a half inches in circumference) the little vessel or steamer must be fairly light and handy, so as to be easily swung round. If the steamer were heavy and slow, the hawser, however thick, would snap, as it sometimes does even as it is when the whale puts on a sudden strain.

In the old style the Greenland whale or sperm which floated when it was dead was pulled alongside the sailing vessel, when the whalebone was cut out of its

mouth and stowed on board, as was also the fat or blubber, and the carcass was left to go adrift.

But the "modern whales," as they may be called, when killed are towed ashore and pulled upon a slip at a station on land or alongside a great magazine ship anchored in some sheltered bay and are there cut up, whilst the little steam-whaleboat killer goes off in search of other whales. All parts of the body, at a fully equipped shore station, even the blood, of these finners are utilised for some purpose or another, the big bones and flesh being ground up into guano for the fertilisation of crops of all kinds, and the oil and small amount of whalebone are used for many other purposes. The oil is used for lubrication, soap, and by a new hardening process is made as clear as wax and is used for cooking, etc. Some of the whalebone fibre is used for stiffening

A Narwhal

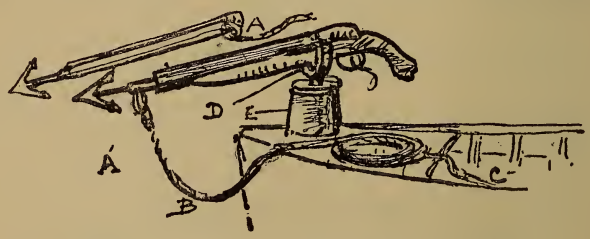
silk in France, but every year or two some new use is being found for whale products.

Though so large, these whales are not nearly so valuable as the Greenland whale; still their numbers make up for their comparatively small value.

Whale hunting as a hobby is big game sport on royal lines. A prey running up to one hundred feet in length and one hundred tons in weight is a bag to be proud of. Mr. Burn Murdoch is an enthusiastic and experienced whaler, though he is by profession a painter of pictures. From his designs the *St. Ebba* was built, a small but handy vessel of one hundred and ten feet over all, with twenty-two feet beam. She possessed both sails and auxiliary motor, and was

fitted and equipped to chase the leviathan in any part of the world with the most modern appliances.

The gun or swivel cannon for the bow weighs about two tons, and is swung in any direction by a pistol grip. The bollard on which it pivots is part of the iron structure of the bows and goes right down to the fore-foot. Its harpoons weigh one and a half hundred-weight: there are twenty-five of these, and forty smaller harpoons for sperm or cachalot or Right whale. On either side of the bows there is a smaller gun pivoting on a bollard to throw these harpoons. The difficulty



THE OLD STYLE OF GUN AND HARPOON

A is wire strop or grummet running in slot in harpoon shaft. B is the "forego," a length of extra fine and strong line attached to harpoon. C shows the line going into the bottom of the boat. D, crutch turning in E, a bollard or timber-head.

for the landsman shooting is, of course, in his sea-legs—he must be absolutely unconscious of them and of the vessel's movement, or of pitch and roll, and the wet of cold, bursting seas that may come over him at any time in the pursuit; but, given good sea-legs and indifference to a wetting, and there is nothing in ordinary circumstances to prevent, say, a fairly quick pistol shot from killing his whale. A certain amount of strength and nerve is required for the final lancing from the pram or small boat, but that is seldom done nowadays, for a second or third harpoon is usually resorted to, as being more effective and less risky.

It was in the North Sea that the first whale of this cruise was sighted. There came one day from the crow's-nest the welcome cry of "A blast!" and the response from the bridge: "How far?" They were bowling south with a blustering, following wind, really too rough for whaling, for the sea made the ship yaw this way and that. However, there was no choice; there was half a chance and it was not to be missed. It did not turn out to be a long chase; it was a solitary finner and they swung after his first blow a mile to port and at his third blow were within a quarter of a mile. Then he sounded, and in twenty minutes came up again and blew a twenty-foot blast of steam into the bright windy air. Again they pursued and were nearly in shot at his second blast, and were following him north against the sea with the foam coming splendidly over at every dive, making one fairly gasp with excitement and cold. They were all wrong at the third rise; a mile out and very disappointed; then, to their astonishment, three minutes after appeared a blast to leeward, and the huge, plum-coloured shoulders of a leviathan coming right across the course—the same whale or another perhaps. A turn of the engine then "Slowly," and they surged ahead, rising and falling on the far too big waves. Then a strange and rare sight came; owing to the position of the sun, the light shone right into the banks of waves, and inside one and along it, was obtained a splendid full-length view of the whale under the greeny water looking almost yellow and white. Only on very few occasions did Burn Murdoch obtain such a complete view of a whale, when looking down on one, but in this case it was a complete side view. Up they rose in a thirty-foot surge, and the top of his dark shiny head appeared, up rushed the blast, and over went his enormous back. As they plunged down a wave its back showed at its highest, and the trigger

was pulled, aiming almost uphill as the vessel plunged its bows under. It was a longer shot than usual, about forty yards and in rougher weather, and the harpoon plunged in at the centre of the target! What a boom and whirl of rope and smoke, and what a glorious moment of suspense and then intense satisfaction when the great line tautened up and began to run—some excuse for a wave of the cap.

But the line is suddenly slack. There was no miss—but they have lost him, somehow or other!

At last the harpoon comes on board—the flanges have never opened!—there is flesh on them, and a foot up the shaft—two and a half feet it had entered, and yet came out! possibly the marlin round the flanges was too strong to allow of them spreading. Possibly the explosive point made too great a hole and allowed the flanges to miss their anchoring hold. It was bad luck.

The solitary finner disappeared, and the hunt was kept up for hours towards heavy purple clouds in the south-west, and the sea seemed deserted as before, till towards six o'clock they saw a blow.

In half an hour the vessel was amongst a school of large whales! and then began the most spectacular whale hunt they had ever seen. For two and a half days the ocean had been almost blank and lifeless, then, without rhyme or reason, it was brimming with life! An indigo bank of cloud there was for background, a complete vivid rainbow against that—beneath it the swelling seas, dark green with purple lights and white foam, with here and there whales' white blasts catching the western sun from a score or fifty enormous finners. In every direction were dolphins with yellow and white stripes, and porpoises spurting water up like cannon shots as they dived; overhead were petrels and dark skuas. The whales' plum-coloured backs caught the western light and reflected the sky on

their upper surface in tints of lavender as they rose, glittering and powerful, in green and white foaming water, in groups of three or four surging along beside each other, east and west, sending up mighty jets of steam, to be carried away in the wind.

The whales were feeding, but travelling so fast that they could not come up with them, so they cut across their course, and dozens of times thought they were going to get their chance. Then other bigger whales crossed, and they gave up the first lot and went plunging after the others, throwing up grand showers of foam over the bows.

For several hours they chased in this wonderful piece of sea, so brimful of life, but the whales dodged about at a most unusual rate; possibly their rapidity of motion was caused by the host of dolphins and porpoises that leapt alongside them and crossed their course.

Often they were close to a whale but not in such a position as to be able to swing the gun towards it. For some time a huge fellow surged close alongside within one or two feet of the starboard beam.

At about ten o'clock the chance came—the vessel crashed down from a high sea almost on top of a whale as it rose unexpectedly, but it was too close, the gun could not be depressed enough to get the foresight on, but the next rise, the moment after its blast they were high in air and let drive as they came down and were fast and sure.

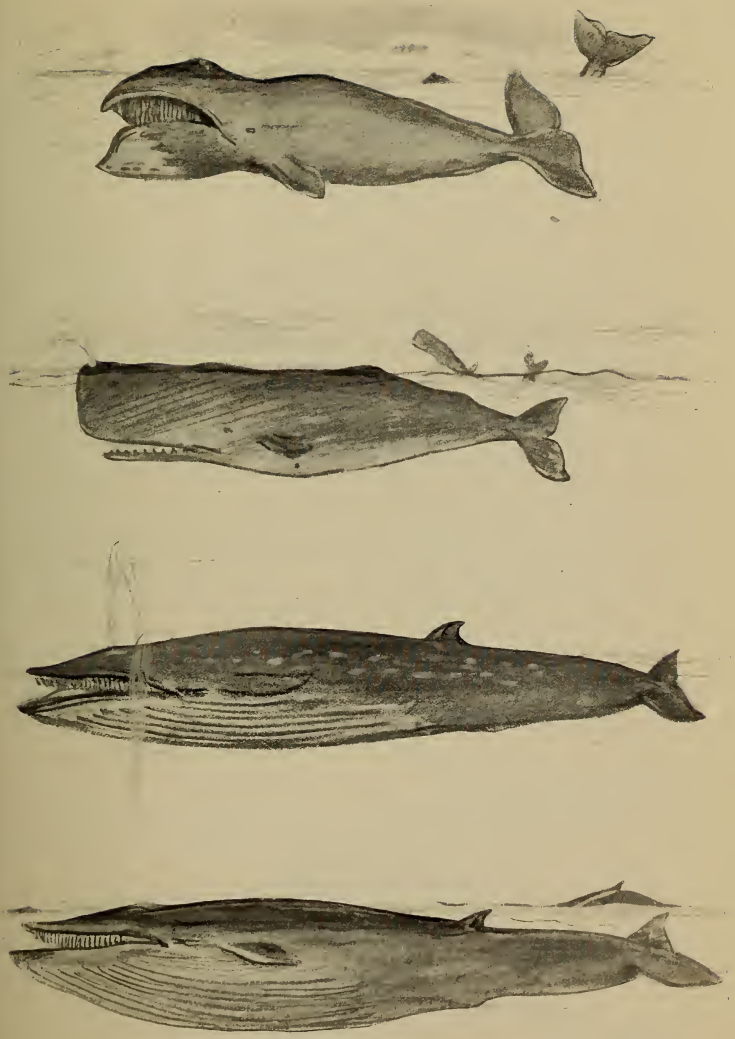
It is difficult to describe the grand rush of a huge whale or that fractional pause of uncertainty after the boom and smoke and flame and the whirl of great rope. It is heart-stopping, almost solemn. One watches the seething black boil where the whale has gone down, with small flecks of scarlet in it, and the great cable fading down into the depths, and the gun-wads smoking on the water. Then off goes the cable to right or left!

Sixty to seventy miles an hour, cutting the water into foam, and the vessel swinging into the course of the whale. Before going fairly in tow on this occasion, an unusual thing happened. The whale's huge head, immediately after it sounded, suddenly shot up twenty yards in front of the bows, twenty feet in the air, and went as quickly down. Had it touched the vessel they would have had quick work to get into their boat, and the little steamer would have made a deep-sea sounding.

About three hundred and sixty fathoms ran out before they saw further sign; running over the two ringing barrels of the strong steam winch, five times round each barrel with the brake such as one sees on a railway engine wheel hard down and burning; then foam appeared a quarter of a mile in front, and the whale's flippers, then the mighty flukes of its enormous tail, slowly threshing the sea into white. To right and left it travelled, towing the vessel ahead whilst the engine reversed at eight knots. But not for long. They managed to wind up some line and got the gun loaded again, thinking it might take another harpoon to stop it, for lancing from the small boat in such a heavy sea would have been too dangerous, even if possible.

The fight was short. It was again harpooned and brought alongside; a weight and line were thrown over its tail; a heavy chain was shackled round above the tail and hauled by the steam winch to the port bow beside the anchor davit, then, with the huge body with its lovely white corded underside above water surging alongside, they steamed ahead. It seemed to be about seventy feet and would probably weigh about seventy tons, and it made the vessel lie well over to port. To float it a little higher out of the water, a pointed tube with holes in its side was driven through the white kid skin, and air and steam blown in.

No two whale hunts are alike; one trip may result



RIGHT WHALES AND SPERM UP TO 60 FEET, FINNERS UP TO 110 FEET

1. Greenland Right whale, *Balæna Mysticetus*, up to 60 feet in length, generally found near Arctic ice. The smaller whalebone whale of the Atlantic and Southern oceans is somewhat similar in shape: it runs to 50 feet; shows tail as it dives; has no fin on back. It is called the Nordcapper or *Biscayensis* and *Australis*.

2. The Sperm or Cachalot, *Physeter Macrocephalus*. A toothed whale 50 to 60 feet; shows tail when it dives; sometimes breaches, i.e. leaps several times in succession as it travels; blast low and projected forward.

3. Seihvale, *Balænoptera Borealis*, 40 to 50 feet; blast about 10 feet; does not usually lift tail out of water before final dive; has fin on back, is therefore a "finner."

4. Fin whale, *Balænoptera Musculus*, up to 75 feet. The Blue whale, *Balænoptera Sibbaldii*, is similar, with smaller fin on back; both make blasts about 18 feet. The Blue whale in Southern seas has been killed up to 110 feet.

in a "clean ship" and empty bunkers, the next in two or even three whales in a couple of days.

A whale comes to the surface, blows and takes in breath several times, just going below surface between each blast. After it feels refreshed it goes below on its business for a dive of, say, twenty minutes or half an hour, and may appear any distance from the spot it went down at. In this last dive it raises the after part of its body with a slow elevation, a sort of sad farewell to the hunter. Certain whales, such as the sperm and narwhal, and Right whales, lift the whole tail out, but others, such as the finners, hunted off Shetland, only show the ridge in front of the tail; and seldom show their tails or flukes until they are harpooned.

The actual firing and hitting a whale any good pistol-shot can do. But manœuvring the vessel, stalking the whale, as it were, needs a good deal of experience, and it goes without saying one must have perfect sea-legs; indeed, that is perhaps the greatest difficulty. It takes a great deal of experience to be unconscious, when there is a roll on, of any effort to balance oneself, which is, of course, absolutely essential for a successful shot.

Sighting the Gun

CHAPTER II

HUNTING MIGHTY GAME (*continued*)

Off Flugga, the most northerly point of Britain's possessions, the weather was simply beastly; in an intensely blue sea, with immense silky rollers, it might have been in the North-East Trades. It was just what was to be expected; thirty to forty miles north of the islands you strike sun and clear sky, then go west fifty miles and you come up against a curtain of rain.

They are sloping along half-speed north-easterly over a splendid silky swell, all eyes sweeping the horizon. The boy at the wheel is the first to spot a blow, to which the whaler is promptly swung, and immediately after, on the horizon, the faintest possible suggestion of a blow is discovered, a minute cloud hardly enough to swear by, as big as the tip of a child's little finger. It fades away and they are sure it is the blow of some kind of whale, and the boy rings up the engine-room and, grinning, shouts down the tube: "Nord Capper, full speed!" This to make the stokers lay on, for a Nord Capper means £1 apiece bounty money to each of the crew of ten men.

The hunt is begun; seven miles towards the first blow there is a shout from the look-out in the crow's-nest, and big spouts are seen within a mile from the left. So the skipper goes forward to his beloved swivel gun or cannon, in his weathered green jacket, a picturesque figure against the immense blue silky, sunny swell.

Five minutes the whale stays down, then comes up to starboard. "How many were there?" says the

skipper to the look-out in the crow's-nest. "Two big and a calf." Eight minutes they stay down and appear half a mile to starboard; there is the lovely silence of a sailing ship as they wait with the engines stopped, studying fleecy clouds and the silky blue stripe their track has left on the swell. It is this rapid contrast that gives the charm to whaling—this morning, in hail and black-eyed sea, a blurred sea and landscape of beaten cliffs and capes; this afternoon a wide horizon, and not a ship in sight, the colour and width of it! But here he is! He came up half a mile to port—appeared two or three times, at a few seconds' interval, then "tailed up," that slow, farewell turn over of the after part of the body as it goes down for a deep dive; and in ten minutes he appears a mile to north-west. There he is half a mile to east. Within two hundred yards, a little to port, the blue sky is reflected on wet plum-coloured back . . . within fifty yards when he made his last dive, the gun is swung . . . there it is! at the second rise under the bow—BANG!

A splendid shot!—away goes the line at seventy miles the hour and the ship is hauled quickly round, and taken in tow eight miles an hour and the engines going eight miles astern, if that is not exhilarating!

The cook and engineer are at the winch brakes—there is a thin furrow of Union Jack colours, red blood, white foam in the blue of ocean—and the line still whirling out at intervals. They "fish fine," the casting line is sixty fathoms, the rope four and a half inches in circumference, the finest Italian hemp procurable, with a backing of two thousand one hundred and sixty-six feet, five and half inches rope to port, and the same to starboard, a total of eight thousand six hundred and twenty feet. The line passes five times round the two barrels of a sixty-five horse-power winch. It is "fine tackle" compared to the seventy or eighty ton fighting

finner that they are playing. There is not much line out, only about one thousand five hundred feet—now they go more slowly in tow. It was a well-placed shot . . . a few Mother Carey chickens come and some fulmar petrels, later a solan goose!—there is a little blood now in its feeble blast, it thrashes with its tail—more line going out—they go astern to drown it. The nose appears, exactly the colour of a salmon at a distance—it turns over—the white ribbed underside up—now it is dead and it sinks. The line is rove over a large iron snatch-block[1] up the mast and the steam winch begins to turn slowly, raising the whale from the depths; a slow, steady, funereal clank; a great chain is manœuvred round the tail and it is hauled up to the side of the bow by the winch; getting the tail chained up to the bow is a complicated, heavy bit of seaman's work. A magnificent and beautiful thing is the tail in colour and form; so wide and big and yet so delicate in design and finish and plum-like colour, and so immensely strong. The body swings alongside, the head reaches the stern quarters, the line is cut clear of the harpoons in its body. Two hours after they first sighted the whale, it is played and killed. After blowing it up they are off for a second whale.

Blowing up, as already described, is putting a hollow lance into whale and blowing through it air and steam, which makes the body slightly more buoyant and more easy to tow.

Another whale is sighted. Meantime the skipper has been cleaning out the whale gun on the bows with tow and cleaning rod, and the charge is put in, and the india-rubber wad driven home on top of three hundred

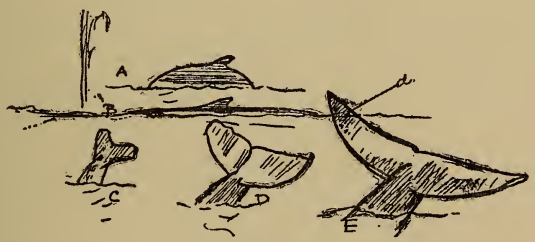
[1] This snatch-block hangs on a wire rope that passes over a sheaf and leads down to the hold, where it is attached to an enormously strong steel spiral spring. This makes a give-and-take action when hauling up the dead whale from the depths to counteract the jar on line and donkey-engine that comes from the rise and fall of the steamer on the sea.

Modern Whale Gun and Harpoon
Ready for firing.

A Finner Whale Being Cut Up
Commencing to cut strips of the blubber with a flensing knife. The blubber is being pulled away as the man cuts by a chain and steam winch.

and eighty-five grammes of black powder. The second line from the port side of the hold is made ready, and a new harpoon, one and a half hundredweights, slung from the hold. The line is spliced to the twisted wire grummet or ring that travels in a slot in the shaft of the harpoon, which is rammed into the gun so that line and ring hang from the shaft at the muzzle of the gun. Getting this done and putting chains and ropes in order takes time, and a considerable amount of work for five men.

He has screwed on the explosive point to the harpoon (over the time fuse), swung round the gun, and they are off in pursuit of a whale just sighted. He has appeared



Tailing Up

several times, made two or three handsome blasts and gone down "tail up," and they followed, as they thought, in the direction he took, but he always appeared right off the track. The term "tail up" is not quite accurate here; the expression really means the whole tail going into air as the whale does down for a long dive. In the case of these northern finners it is generally only the part of the back next to the tail that is raised, not the flukes, and this rising tells that the whale intends to go down deep for twenty minutes or half an hour.

Some whales "tail up" before a long dive; some more, some less; some finners only do this A dive after

showing several times and blasting, B. But these narwhals show their dumpy feeble tail, C, as also does the sperm, D, before the long dive. The rorquales' tails are magnificent appendages, and it is often thrown clear of the sea when such a whale is "fast" or harpooned, E. The sperm can make a big swipe with his tail; it is apparently more elastic in the spine than the finner. To see a sperm breaching is a fine sight; he runs fast along the surface, every second leaping clear out, or at least going, as it were, on his tail, and thumps down with a crash of spray.

CHAPTER III

HUNTING MIGHTY GAME (*continued*)

A cool, sunny morning, with rolling glassy grey swell and warmer. A large finner is towing the vessel. It has taken five hundred yards out with several rapid rushes of forty to fifty miles an hour, and there is a smell of the burning wood of the breaks; it is very quiet. The whale blows occasionally and turns the swell into white and red; it looks as if it must be lanced from the small boat, or another harpoon got in. It was a most interesting chase; five monsters blowing half a mile apart seemed quite a crowd. They had got in between two, feeding, and after an hour's hunt altogether, one rose a few yards to starboard. You could see down its blow-hole, then its great back came out, and into its last ribs the harpoon went, and at the wheel all were in smoke and tow. The smoke cleared and the wads lay in the swelling vortex the monster left, and then the line rushed!

But this whale will not die, it must be lanced; an eighteen-foot spear is the lance—half iron, half wood. The pram is swung out—dropped half on top of the dead whale, a previous capture, and over the glassy rollers goes the boat at a good pace; the whale is six hundred yards away or more and wandering from left to right, and ahead, in the deep swell, it seems as if it would be a long business to get into reach. The stern is backed in and the spear goes in five feet and is twisted out of hand, and the vast body rolls over, the tail rises up and up and comes down in a sea of foam. They pull clear, back in again at the next rise and draw the spear

all bent, straighten it, and one more thrust finishes the business and the whale spouts red and dies.

Whales seem to be such good beasts, and have such kind brown eyes—nothing of the fish in them, and their colouring is that of all the sea; their backs are grey-black to dove-colour, reflecting the blue of the sky, and the white of their underside is like the white of a kid glove with the faintest pink beneath, so white it makes the sea-foam look grey as it washes across it to and fro, and the white changes to emerald green in the depths to the blue-green of an iceberg's foot. It is strange that this skin should be so extremely delicate in such a large animal; it is too thin to be used as leather.

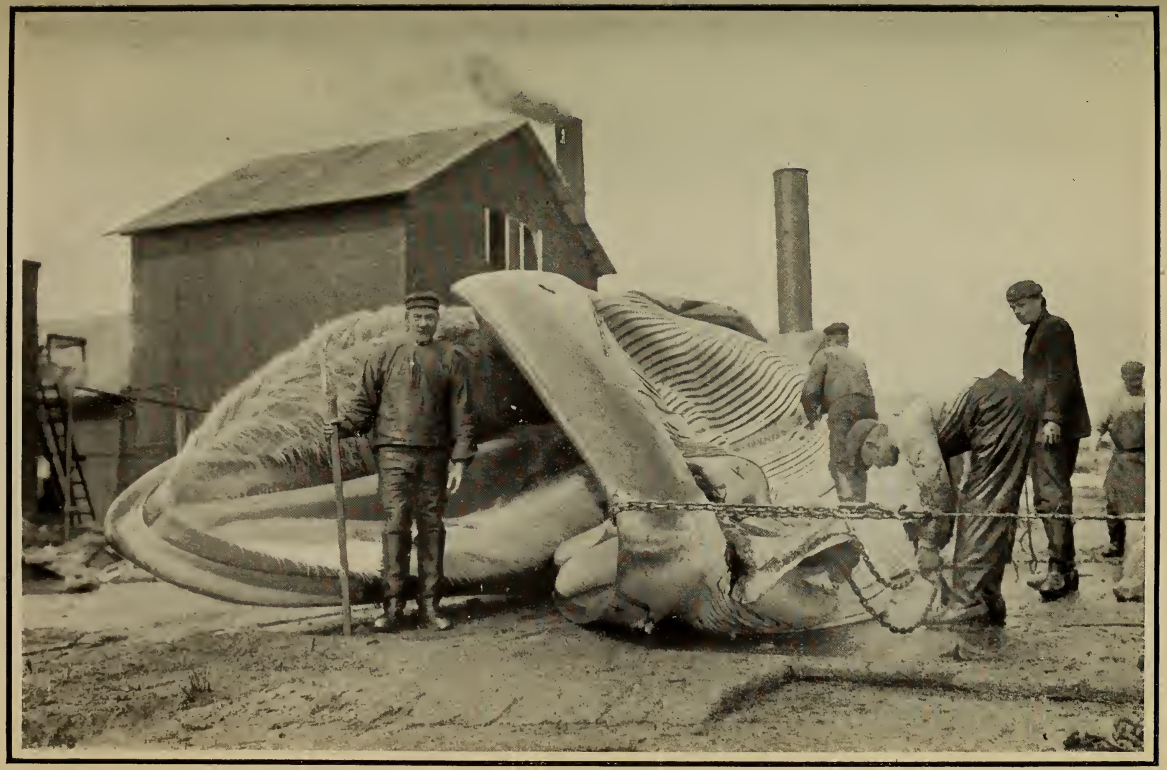
Further south a grey, blunt-headed whale rose almost in front, blew his blast and went under for a few yards and rose again dead in front; higher and higher his back rose, then *Bang!*—and he was fast and the line rattling out.

A great surge followed as the whale went down, and out went the five-inch rope—for but a short distance, though it was a heavy rope, spun for far more powerful prey than the sperm or cachalot, and he was soon reeled in, and a long lance ended the valuable animal's troubles.

There was no ambergris in this one. It disgorged several cuttle-fish but they were not lost, for the sharks soon came round, and nothing comes amiss to them.

Ambergris is found sometimes in a sperm's intestine, sometimes thrown from the whale into sea. It is used as the basis of scents. Its selling price is about one hundred shillings per ounce. A whaler a short time ago secured some from one whale, and sold it for £20,000.

All afternoon until late at night was occupied in cutting up the whale. First of all a cut was made round its shoulder and fin, or hand—for a whale has bones like those of a hand inside the fibrous fin. In



MOUTH OF A FINNER WHALE

Showing the hairy surface of the whalebone plates on the palate.

fact, the whale's anatomy is similar to that of a land animal, not like that of fish. The hip bone and thigh are only floating rudimentary bones.

A round hole was cut through the blubber, round the fin or arm, and a strop or loop of rope passed through from the under side of the blubber and pulled taut on to a sort of button of oak called a toggle on the outside surface of skin. Then, with the winch's hook and chain hooked on to the strop, by steam power was gradually raised a strip of blubber about two feet in width and of about eight inches in depth off the whale, as the body slowly revolved in the water, cutting it clear of the flesh with the flensing blades from the dory or flat-bottomed boat.

The head and tail parts were treated separately. Finner whales on a landing-stage on shore are stripped or flensed from end to end with an instrument like a sabre on a long shaft, but if one has to be stripped or flensed at sea, it has to be treated in the same way as this sperm whale.

At early dawn work was recommenced at the whale; and *case*, *junk*, and all will be on board before mid-day meal.

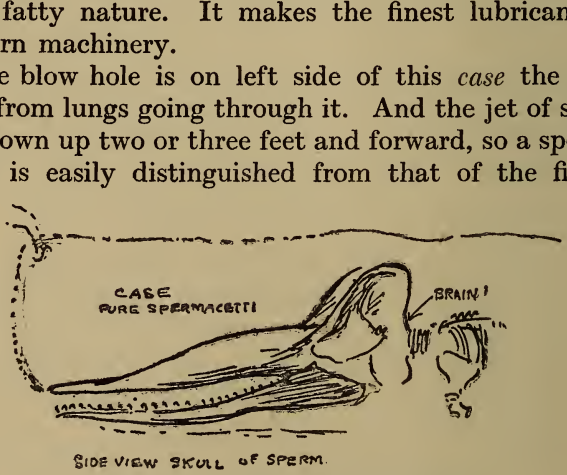
This *case* or long forehead of sponge-like spermaceti oil is a marvel, it is only covered with thin soft blubber skin.

The mass of fibrous tissue is even fuller of liquid oil than a bath sponge could be full of water. Whilst it was still warm it was pumped out with flexible steel pipes, but it condensed and choked the pipe. But when it grew colder it could be handled.

The sperm or cachalot whale's head is very peculiar. It has teeth in lower jaw and a small tongue. All the part forward of the dotted line, which represents the skull of the head, is a mass of fibrous oil. When you cut through the skin you can bail it out with pitchers

or pump it out till it gets too cold, after which you do not know whether to lift it in your hands or in a bucket. It is beautifully clear. No one knows why it has this extraordinary spongy fore-part to its head. This sperm oil is chemically different from the oil of other whales; it is more of the nature of a wax; the other whales are of a fatty nature. It makes the finest lubricant for modern machinery.

The blow hole is on left side of this *case* the blow pipe from lungs going through it. And the jet of steam is thrown up two or three feet and forward, so a sperm's blast is easily distinguished from that of the finner,



HEAD OF A SPERM SHOWING SKULL

which is bigger and straight up, say to twenty or thirty feet, or possibly forty feet, in the case of a large Blue whale.

The plan adopted in this case differs from the most recent whalers; they either tow their prey ashore or into harbour alongside great floating ship factories of several thousand tons, to be cut up and boiled down. Here it was cut up at sea and the blubber taken on board, and melted or cooked.

The deck is now like a marble quarry, with great white chunks of fat in the moonlight, and dusky figures cutting these into blocks of about a foot square to go into the two pots.

Steam is let into them at one hundred and sixty

KILLERS ATTACKING A FINNER WHALE

pounds' pressure, and the cooker has to watch two taps running from these, each now pouring out beautifully fine sperm oil. He stands by the two pots on either side of the ship amidships, one to port, one to starboard ; now and then he dips a bright tin ladle into the oil that keeps running out into an open tank, and sniffs at it, and pours it back, examining its colour, which is like pale sherry.

There is no smell actually about the cooking process till the water that is formed in the pots by the condensing steam has to be blown out of the bottoms of the pots. Then the blue sea gets a yellow scum and the atmosphere is pervaded far and near with the smell of beef-tea.

The narwhal of the Arctic seas feeds on small cuttle-fish, only about a few inches across the spread of their tentacles, and red prawns or shrimps. But the cachalot or sperm whale of the warm seas kills very large cuttle-fish. Large circular marks in their backs, something like Burmese writing magnified, look as if they had been caused by the sucker on the tentacles of enormous cuttle-fish, and wandering grooves over their sides suggest that the parrot-like beak of the cuttle-fish has made its mark. The contents of the stomach of many of the largest whales in the world, *Balænoptera Sibaldi* (Blue) and *Balænoptera Musculus* (Finner), which are killed nowadays, consist almost entirely of small shrimps, about one-quarter of the size of the common shrimp.

The food of the whale that used to be more common, the Right whale, *Balæna Mysticetus*, is about the size of barleycorns and looks rather like sago with a brownish tint. The whale takes a mouthful of these, plus water, and squeezes the water through the blades of whalebone round the edge of its mouth, each of which has a fringe of hairs on the inside. These hairs, interwoven, make a surface to the palate like that of a coconut mat, which

makes a perfect strainer. Then the whale swallows the mass of minute crustaceans that is left on its tongue and palate. The tongue is an immense floppy plum-coloured thing like a deflated balloon.

A Comparison of Arctic and Antarctic Ice

[The information contained in the preceding chapters has been derived from Mr. W. G. Burn Murdoch's book, *Modern Whaling*, by kind permission of the author.]

CHAPTER IV

THE ICE-BOUND SHORES OF LABRADOR

It was in 1771 that the missionaries of the Moravian Church went to Labrador. Before that time very little was known about the Eskimo people. Vessels seldom braved the stormy waters of Labrador, or, if they did, they ventured but little among the numberless rocks and islands that fringe the mainland. So it came about that the Eskimos were seldom seen ; and the few reports that were brought to the civilised world by returning fisher crews described them as a totally savage and uncultured people. They seem to have deserved the name ; for the first men who landed from the mission ships were killed.

Doctor Hutton's first impression of the land was a dispiriting one. There was a chilling mist on the water, and through it he could dimly see a dull and sullen coast-line, and hear the ponderous thud of the sea as it beat upon the rocky wall. And when he went ashore and saw the stunted brushwood and the dwarfed and twisted trees all dripping with moisture, and met the hulking sledge-dogs, bedraggled and forlorn, wandering in aimless fashion among the huts, the idea of desolation was complete. But the next day brought a different picture. The summer sun shone brightly on the moss-grown huts that strewed the hill-side ; brisk, black-haired little people were running to and fro, bustling to help at the unloading of the ship ; there was an air of life and brightness about the scene. He caught some of the glamour of Labrador ; he saw something of the charm of this lonely land, a charm that in some

Hudson's Strait
Button Islands
C. Chidley
KILLINEK
Eclipse Harbour
Ungava Bay
Akpatok Island
Tongaat
Kangiva
HBC
Nachvak
RAMAH
Nullatartok Bay
Saeglek Bay
HEBRON
Watchman I.
Napartok Bay
Nennoktut I
OKAK
C. Mugford
ATLANTIC
OCEAN
Kiglapeit
NAIN
Pauls I
HBC
ZOAR
(abandoned 1864)
HBC
Davis Inlet
C. Harrigan
Arvertok
HOPEDALE
Gull I
Tukkerarsuk
Turnavik
Aillik
MARKOVIK
C. Harrison
Harbour Deep
Webeck
Indian Harbour
Hamilton Inlet
Riggolet
Scale:
1
3,750,000
10 20 30 40 50 75 100
Eng: miles.
60
55

Photo lent by *Moravian Missions*

SEAL-HUNTERS

They go out in the autumn, always on the alert to fling the harpoon that lies ready at their right hand. The seal is brought home on the deck of the kajak, and the arrival is always followed by a feast of raw sealmeat for all.

strange fashion makes people love it, that makes old residents who have left it pine to return, that makes even the casual visitor vow to come again.

There was a wealth of wild flowers ; they were everywhere, rearing their heads among the unpromising stones, and blooming in profusion amid the thick moss that carpeted the ground—delicate harebells, tall foxgloves, scentless violets, yellow dandelions, besides other and unknown varieties. Butterflies were flitting to and fro ; grasshoppers were leaping about ; mice and lemmings darted under the stones, bristling and squealing : it seemed such a summer land ! So different can two impressions be.

The following year Dr. Hutton visited Labrador again, but this time to stay, for he had come back to the land to make his home at Okak, and to plant a hospital there among the Eskimos. It was October when he arrived, and the land was all covered with hard snow, and the beach was crusted with a coating of ice that crackled and boomed as the tides lifted it and left it. The sea had a queer haze over it ; it looked exactly as if the water were getting ready to boil, and the vapour was gently drifting with the wind ; the sea was beginning to freeze, and the smoke was a sign that the ice would soon cover it. But day after day the wind kept the water constantly tossing, and gave it no chance to set. At length a calm night came, and in the morning there was ice. It seemed strange to look over a great grey plain instead of the white-capped waves, and the absence of all sound created quite an eerie feeling. With the freezing of the sea the Labrador winter begins.

Dr. Hutton was advised to adopt native dress, and was accordingly introduced to the local " tailor," a square-faced, brisk little Eskimo woman who eyed him critically, taking mental notes the while, and after a few days turned up again with a bundle containing a

" dicky " (blanket smock) and a complete suit of seal-skins just like those the Eskimos wear. The method of measuring for boots was similar to that adopted by the tailor, for the boot-maker (again a woman) gazed at his feet, trotted away and eventually produced as comfortable a pair of boots as he ever possessed. Whenever Dr. Hutton went into an Eskimo house he found the women and girls chewing something. He imagined at first that they were eating or chewing reindeer ears (which they cut up into a sort of native chewing gum); but no, they were softening the edges of the boot-leather for the needle. An Eskimo boot is made in only three pieces—the legging, the tongue or instep, and the turned-up, trough-like sole; the boot-maker cuts them out and hands them round to be chewed. The chewing of boot-leather is woman's work from childhood to old age.

With the freezing of the sea there begins the real Labrador cold, but oddly enough it does not feel so very cold; coming from the interior it is dry, keen and bracing, lacking some of the sting of the sea wind. One learns to watch one's neighbour's nose; lips stiffen with icicles; hands cannot bear to be without gloves for a single moment. Spring-time provides for the children the most exciting game of the whole year, when the ice breaks, and the tides which come oozing up the beach bring great pans and little flat pieces floating shorewards. These make capital rafts, and boys in twos and threes paddle themselves along with their hands or punt about by means of poles. Children at an early age are adepts with oar or paddle, and seldom come to grief; yet, curiously enough, very few Eskimos can swim.

One of the most attractive qualities of the Eskimos is their simplicity. They have the gift of graphic and fluent speech, and can describe their doings with thrilling

gestures and telling emphasis when they choose. But they must get warmed to their subject; a mere question will not set them going. And they can talk furiously. They are very excitable, and fly into a passion over a trifle; but though they are quickly aroused, they are just as easily appeased. Family feuds or long-drawn quarrels are rare. They are a hard-working people, but they have their lazy side; they are apt to dawdle over work to which they are not accustomed. At one time they were very skilful at carving ivory walrus tusks; but as the animals were driven northwards such tusks as could be secured were required for harpoons; there was, too, but a small market for the articles, and so the art died out.

The Eskimos cannot be held up as a cleanly race; they are still far behind true civilisation in habits of cleanliness and sanitation. But the nature of their work must be taken into consideration. In the north where no trees grow, and seal-oil lamps provide light and a meagre tinge of warmth for the huts, the people look dirty. The huts are small, and all the work of skinning and dressing the seals must be done in them because out of doors everything freezes as hard as stone; and so the work-a-day clothes are black and shiny with oil. The Eskimos wear out fast; after fifty a man begins to decline, and few live long after sixty.

As soon as the winter was fairly established Dr. Hutton began to think of visiting some of the other stations by sledge, and with this idea in view placed the work of constructing the vehicle in the hands of two experienced natives, Jerry and Julius. They succeeded in getting an enormous tree stem from the woods, hauling it for many miles across the snow by means of dogs. Its age might truthfully be reckoned by centuries, for the growth of trees in Labrador is exceedingly slow, and the wood requires no seasoning,

The trunk was sawn into planks, the workshop consisting of two big blocks of frozen snow in the open air. The sledge was sixteen feet long, and two and a half feet broad. It had twenty-six cross-pieces, and never a nail did they use; thongs of seal-skin bound the pieces together. They set the runners on the blocks, and bored holes for the binding; then stood them up a couple of feet apart and bound the cross-pieces to them, first the front and back ones, then the middle one, and then the others to fill up the spaces. There was a gentle upward curve from back to front to make the sledge rise better to the snowdrifts, and the runners were not set quite upright, but splayed slightly outwards to keep the sledge from slipping sideways; and every bit of the work was done with the neatness and exactness that the most skilled of carpenters might envy.

The runners were shod with strips of iron, a style that has quite ousted the old plan of shoeing with bone or mud. But further north mud is still used; clay and moss are mixed with water, and it is plastered on hot. It freezes instantly, and must then be scrubbed to smoothness. It is a cheap method, but brittle. A journey to Hebron was decided on for the trial trip, and a start was made at five o'clock in the morning in pitchy darkness. At a signal Jerry sprinted along the track, and the dogs went racing after him. The line tightened with a jerk, and the sledge started with a bound that nearly threw the Doctor off. Sledge dogs, unless they are very tired, are always eager to be on the move, and are in such a hurry that they try to take short cuts of their own, leaping over great snowdrifts and frantically straining to climb huge hummocks of ice.

After travelling for two hours a halt was called to disentangle the dogs, which by continual crossing over

JULIUS AND A SNOW HOUSE

The Eskimo always builds his snow hut on a spiral plan, making the wall lean well inwards as it curves upwards, and fits a "keystone" of frozen snow into the hole at the top. When finished it is snug and windproof, though always very cold.

had plaited their traces together like the strings of a maypole. Dr. Hutton drank some warm coffee, but the drivers contented themselves with water and a lump of frozen seal meat. Another halt was called at noon to ice the runners of the sledge. This was effected by squirting water from the mouth over them, when it instantly formed a glass-like coating.

Hebron appeared to be a veritable land of dogs; the place swarmed with them. By daytime it was not so bad, for one could avoid treading on the sleeping brutes, though it was not very comfortable to be persistently followed by a dozen or more of the wolfish-looking creatures; but by night it was awful. The dogs sang and snarled and fought and held meetings of their own, and prowled about in gangs in the moonlight, furtive and terrible. Sledge dogs are ravenously hungry when feeding-time comes, and an ordinary team can easily polish off the carcase of a seal, but feeding-time comes only three or four times a week.

The next visit to Hebron was in more dispiriting circumstances, for an urgent message came to Okak for medical help, as an epidemic of a serious nature had broken out. The morning was bleak and pitchy black, and although the thermometer registered only twenty degrees of frost the cold was bitter in the extreme. So dark was it that only a faint glimmer of the snow on which the sledge was running could be seen. It was marvellous how drivers and dogs were able to nose their way across a trackless waste. Their progress was brought to a full stop by a bay which they must cross, but the ice was heaving and groaning all round; there seemed to be no other course than to turn back. But one of the drivers remembered a track over the headland. On the left the wall of rock rose steep; on the right the black water churned and tumbled and ground the floating pans of ice together; under

foot the thick sea-ice rocked and heaved with the force of the waves, and here and there the water came swilling over. The sledge raced along until it reached the place leading on to the headland. At this spot the ice was broken away from the rock, and was rising and falling with the swell. One moment it came groaning up to the level of the land; the next, it sank away and left a leap of several feet. The dogs went scrambling over, glad to get on to something firm, but the drivers held the sledge back until the ice began to rise, and then with a yell they started the dogs again and bumped across the track just as it came up level; a second too soon or too late would have meant smashing the front of the sledge to splinters. It seemed a long way over the headland, up hill and down and always through soft snow; and all the morning the little driver trotted on knee deep in snow, lifting his feet high to run the more easily, and keeping the same steady pace, hour after hour, with the dogs hard at his heels.

Dr. Hutton was expatiating on the advantages of sitting in a travelling box in contradiction to his missionary companion who advocated the balancing oneself on it like the Eskimos, and was lolling in fancied security and comfort when a sudden jar sent box and occupant into the soft snow, where he remained sticking head downwards, with futile legs waving in the air. The drivers pulled him out and set him right end up; and there he sat, scraping the freezing snow out of his neck, ears and hair, while everyone laughed. Hebron was reached without further mishap. Typhus had broken out, and four patients were already dead. Effective means were taken to stamp it out, and Dr. Hutton returned to Okak, making the same journey across the headland they had traversed before.

On his next journey to Hebron the morning seemed an ideal one for travelling, but when they reached the

half-way point a small cloud appeared drifting rapidly from the north. This developed into a heavy grey wall coming tearing along to meet them ; it was the northern storm. Even through the thick seal-skins the wind cut bitterly. A wall of frozen snow beat against them, a taut line stretching away to where the dogs were lost to sight in the drift. But fortunately a hut was at hand, where they took shelter.

The " mauja " or soft snow makes travelling most trying. In it the dogs wallow and seem to be actually swimming, unable to get a foothold and floundering as they try to lift their legs above the surface for another step. Such was Dr. Hutton's experience on his return journey. By a sort of instinct the dogs dropped into line one behind the other, so as to take advantage of the track made by the dog in front, but this made the lot of the leader an unhappy one. Jerry, however, marched in front with his snowshoes, tramping down the soft snow to make a firmer track. The snow also collects in a big snowball between the runners in front ; this must be kicked away, and the nose of the sledge lifted for a fresh plunge. The dog's life is a hard one, but the Eskimos do not treat them cruelly ; but quarrelsome, lazy or sulky dogs require the whip at times. With an indescribable sweep of the arm the driver sends the thirty feet of walrus-hide lash hissing through the air, and with a sharp flick catches the right dog a sounding crack on the flank. When the animals were tired the driver would run in front to encourage them on.

Sledge dogs are very ravenous, and will eat their harness, skin caps, in fact anything made of leather. Two or three meals a week is enough for sledge dogs. They are unpleasant brutes, handsome in their way, but unfriendly and sly ; easily mastered by firmness, but ready to take advantage of any weakness.

There are plenty of thrills on a sledge journey, and coasting downhill is one of them. As soon as one began to descend the drivers moved to the front of the sledge, and sat one on each side. Their main concern seemed to be to keep the sledge from running away. They dug their heels into the snow, and tugged and shoved to keep the track; and all the while they were yelling and screaming at the dogs, which raced on in front in a frightened effort to get out of the way.

On these journeys Dr. Hutton was frequently obliged to take refuge for the night in a snow-house. When the afternoon light began to grow dull Julius would pull out one of the big snow-knives that he kept under the lashings of the sledge. A fearsome looking knife it was, with a bone handle and a blade a yard long. Brandishing this, he trotted from side to side, prodding here and jabbing there. He was "finding snow." Then the building began. It was generally on a gently sloping hillside, for there the snow hardens the best. Each of the two drivers armed himself with his huge snow-knife, and between them marked a circle on the snow. Then Johannes retired to the middle and began to dig. He first made a wedge-shaped hole to give himself a start; and then from the sides of the hole he carved great slabs of the frozen snow, about six or eight inches thick, two or three feet long, and eighteen inches high, and they were nearly as heavy as stone. He just tumbled them out of his hole as fast as he could cut them, and they were all slightly curved. Julius seized the slabs and set them on edge, side by side, and chipped them a little from the top so that they leaned inwards. He pared away the first few with his knife so that the lowest ring, when finished, formed the beginning of a spiral. Meanwhile Johannes got nearer and nearer the wall with his digging, and his work got harder and harder, for instead of tumbling

the slabs out he had to pick them up and hand them to Julius over the leaning wall.

At last the spiral was finished, all but the keystone. Julius sprawled on the side of the house, while Johannes' hands shoved a big slab through the opening that still remained at the top. Julius laid it over the hole, and chipped the edges away with his knife until it gently dropped into place, and the building was ready. While Johannes smoothed the floor inside Julius was filling all the crevices with snow to keep the wind out. This part of the work was usually done by a boy. When Johannes had finished he slashed a doorway through the wall with his knife, and crawled out. After retiring, a small hole was pierced through the top for ventilation, and the doorway stopped up. The beds of the drivers consisted of harness; this was done so that the dogs might not eat it in the night, and a terribly uncomfortable bed Dr. Hutton found it, though his discomfort was alleviated by his thick sleeping bag. When the house-building was finished the dogs knew their meal-time had come. Their meal consisted of chopped-up frozen seal. On this they pounced, yelping, snapping, snarling, gulping, those coming off best who gulped down their share quickest. For the men there was boiling tea and thawed bread and frozen meat.

The dogs have an awkward habit of entangling the harness by leaping over the traces from side to side. Julius was clever at straightening it out without stopping. He would pull the team back close to the sledge, so as to get the frozen knot in the hauling line within reach of his teeth, and with the line tied to one leg, chewed the knot loose. Then he slipped the traces off one by one and looped them over his other leg, so that all through the performance it was a case of seventeen dogs harnessed to Julius' legs, while he sat tight and made the sledge come along with him. When a halt

was called, the dogs did not settle down into the snow, they simply collapsed into it, and in a few moments were fast asleep under a covering of snow. Dr. Hutton found it necessary to take heed to his steps, for an innocent-looking mound might contain a savage sledge dog ready for food or fight.

On the way home from one of their journeys in the spring-time they found that the tides had played havoc with the ice; a crack four or five feet wide lay across the track, and there seemed to be no way of getting round it. The first thing was to fling or shove the dogs into the water one by one; they made a great to-do about it, but the drivers pushed them all in, and the terrified creatures were soon shaking themselves on the other side. The next thing was to push the sledge along until the front of it bridged the crack and the runners were touching the other side; then, with a great howl Julius started the dogs, and the men all jumped on to the sledge as it careered safely over. Then the drivers turned and looked at one another and laughed; it was, to them, a spice of excitement in the monotony of sledge travel.

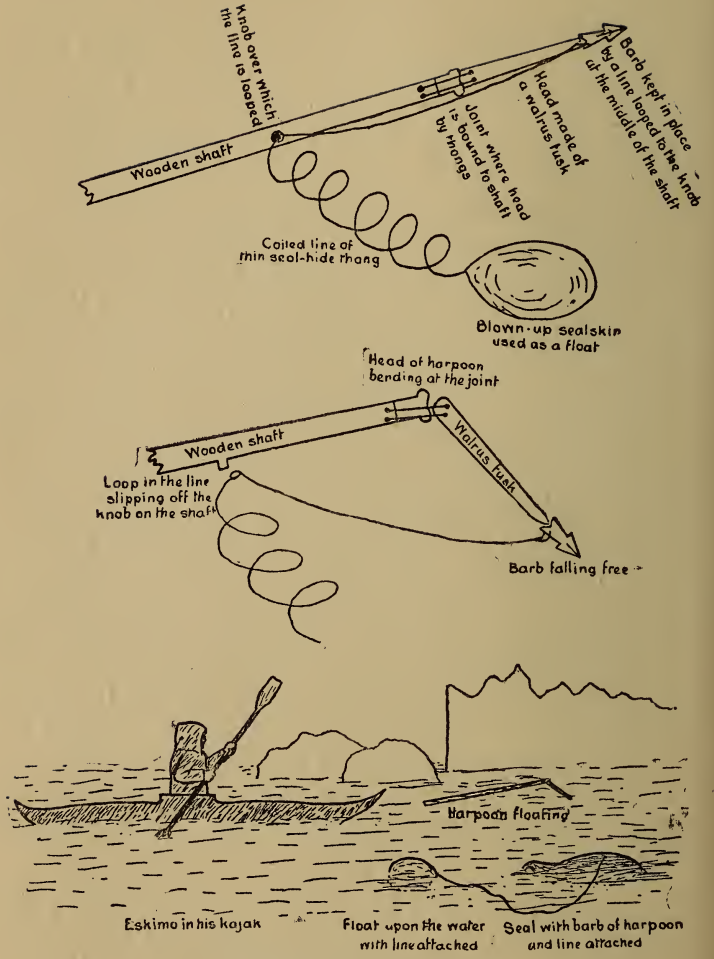
The last few weeks before the freezing of the sea are a busy time for the Eskimos; the whole village is in the ferment of a new excitement, for the seal-hunt is beginning. Men and boys are busily getting their kajaks ready for the water, lifting them down from the house-tops and scaffold-poles, searching for leaky places, smoothing the handles of paddles, bustling to and fro with harpoons and loops of lines, beaming with eagerness, and evidently looking forward to their favourite season. Seals are captured either by net or harpoon, or sometimes shot with a rifle. The rifle is, however, driving seal, walrus and bear further north, to lonely haunts still free from the hated presence of man. But the Eskimo is too conservative to give up

DOGS FISHING

In winter the sledge dogs are fed three or four times a week, but in summer, on the principle of "no work, no food," they are left to forage for themselves. They may often be seen in the shallow water on the beach catching the slow sculpins or frog-fish.

the ways of his fathers; he still likes to shoulder his kajak, and launch it with its weird and ingenious equipment all ready for seal-hunting. The harpoon lies ready at his right; and as he wields his paddle he is always on the alert to let drive at the seal as it pops up for air. The skill with the harpoon is a thing that the Eskimos have not lost, nor, it is to be hoped, will they ever lose it.

The seal is an agile beast, and ponderous withal, and when struck a sudden dive may chance to break the harpoon. To obviate this, the head of walrus tusk is jointed to the shaft by thongs, and on the end is loosely attached a barb, which is kept in place by a line looped on to a knob on the shaft. To the end of this line a bladder filled with air is attached. When the animal is struck the barb falls free, the head bends over, and the shaft floats on the surface of the water, the tell-tale bladder showing where the seal has gone down. When the seal reappears it falls an easy victim to the hunter, who seizes it with a long hook and draws the slippery carcase on the kajak in front of him. Dr. Hutton accompanied one party on a seal hunt, and when the animal was shot it was drawn on board; its throat was then slit and each quaffed the warm blood as it welled out; it is the custom of the people. In the presence of visitors their native ways are not much in evidence, for they fear to be laughed at; but with those who live among them, travel with them, and eat with them and speak their language, they are the kind-hearted, open-handed, raw-meat-eating Eskimos. They still like to depend on the hunt for their daily food; they still go out hungry in the morning, and gorge themselves on the raw flesh of the seals they bring home. This is their custom, part of their nature, born in them. At Okak and in the north generally, the people are broad and plump, with flat faces and sunken noses; but


Knob over which the line is looped
Wooden shaft
Joint where head is bound to shaft by thongs
Head made of a walrus tusk
Barb kept in place by a line looped to the knob at the middle of the shaft
Coiled line of thin seal-hide thong
Blown-up sealskin used as a float
Head of harpoon bending at the joint
Wooden shaft
Walrus tusk
Loop in the line slipping off the knob on the shaft
Barb falling free
Harpoon floating
Eskimo in his kajak
Float upon the water with line attached
Seal with barb of harpoon and line attached

HARPOON AND BLADDER

further south there are lean, sharp-faced Eskimos with bony limbs and pointed noses. They are pure-blooded Eskimos, but the cause of the change lies in the altered food and habits of the people themselves, habits induced by contact with the outer world.

Seals are not the only quarry; by far the best fortune a man can have is to catch sight of a walrus resting on the ice. The great idea is to rush boldly upon the ponderous beast and spear or shoot it while it is too dazed to move. It has no chance; it is unwieldy and slow and has hardly made up its mind which way to turn before the hunter is on it and its life is over. A walrus is a formidable beast; its ferocious eyes and bristling whiskers and great gleaming tusks make a terrible picture; and the very weight of its tremendous rush would be enough to frighten most folks, quite apart from the uncanny agility the huge animal displays when once it is roused. But the Eskimo in his kajak is a match for the walrus; he is every whit as active and twice as sharp-witted; and if the men see a walrus disporting himself in the water, they are after him like a shot. Landing a walrus is no joke; it stands to reason that a creature fourteen feet long and fourteen feet round the middle is an enormous lump to lift.

The lucky hunter skins his huge catch, and chops it into chunks, and hands the pieces round. The flesh is rank and coarse, and even the liver is tough. The Eskimos boil and eat part of the skin and make the rest into whips and sledge drags.

No sooner is one hunting season over than another begins; fox-skins, white, red and silver, fetch generous prices, but the greatest care must be taken in preparing them for the market. This is the wife's duty, and woe betide her if she makes a tear or a cut in the course of her scraping. If the hunter finds that the fox in his

trap is not already dead, he dare not spoil the fur by shooting it, but kills it by kneeling on its chest.

It sometimes happens that the hunter catches a tartar in the shape of a wolverine. The powerful brute, finding itself fast, marches off with the trap, snarling and grumbling at the pain; and before the hunter can add it to his bag he has a weary trail through the woods, up and down, to and fro, following the blood-stained line of the trailing trap, and at the end of it all he has to face a sharp encounter with one of the most dangerous things a man can meet, a mad and furious wolverine. He is thankful to shoot the beast before it does him an injury—if he has a gun with him.

The coming of the reindeer hunt is a time of great excitement, the beginning of which custom has fixed for Easter Tuesday, and scouts are sent out to bring back reports of the probable whereabouts of the deer. Every preparation is made, and there is stir and bustle all the day long. The hunters' whole equipment consists of a scrap of dried seal meat or fish for themselves and the dogs, a gun, an axe, a knife, sticking plaster, grease, and perhaps a kettle. They separate, and sleep in snow huts, for solitude has no terrors for the Eskimo hunter. After an absence of two or three days a dot may be seen on the distant snow which soon resolves itself into a sledge laden with reindeer meat, hides, and antlers. How enthusiastic is the reception, and how glorious is the feast which follows.

In the spring a general exodus is made to various places on the coast which are best adapted for seal hunting. Sledges are packed like furniture vans, with wife and children, to say nothing of puppies on the top of the load; great sides of dried reindeer meat are tucked among the boxes and bags, and the naked ribs of a new kajak top the pile. During the seal hunting the families live in calico tents.

THE ESKIMO BOY

A favourite boys' game—punting on the broken ice in the spring-time—and all the more dangerous because none of them can swim.

When a man finds a blow-hole—that is, a round hole in the ice that the seal has made for its occasional breath of air—he surveys it critically, and decides, first of all, whether it is an old or a new hole. If the result of his examination is to his satisfaction he makes ready for the seal's next visit. He retires a few paces from the hole, arranges his implements, and lies down to wait. There he stays, as still as a stone, stretched on his face with his head towards the blow-hole and his eyes fixed untiringly upon it. Sooner or later the seal comes up to breathe; like a flash the harpoon is sunk in its fat neck and the line is hissing down into the water as the terrified creature dives in desperation. The moment the harpoon has struck the hunter leaps to his feet and rams a sharpened stake into the ice, and on this he loops his line; he is just in time to brace himself when the line draws tight and the seal stops in its career with a jerk. He then hauls his catch on to the ice; when this is done he stoops to take his drink of blood.

An ôtok is a seal which for hours basks lazily in the sunshine on the surface of the ice, near the edge. Though seemingly so lazy he is really very alert and flaps grotesquely into the water at the first sign of anything suspicious. When an Eskimo spies one of these from a distance he shields himself behind a screen of calico fastened on a wooden frame, and gradually worms his laborious way towards the unsuspecting creature until he gets within striking distance.

Not all the families that flit in the spring-time go seal-hunting among the breaking ice, some turn their thoughts to the trout preparing for their run to the sea from the inland lakes. This pursuit is more paying than seal-hunting; it is always fairly certain, and salt trout fetches a good price. The favourite way is to spread nets in the shallow water where the big rivers run into

the sea, and clear them after every tide. This clearing is not so simple as it reads, for in addition to taking out the wriggling fish, the nets must be cleared of every particle of seaweed or rubbish, rents must be repaired, and pieces of ice towed away. This occupies the men the greater part of the day, whilst the women split and salt the fish.

The close of the spring fishing and hunting brings the people back to their homes, until cod-fishing makes the months of August and September the busiest in the year. Day in and day out the boats are on the water with men and boys fishing from morning till night. The quantity of codfish is astonishing; they literally teem in countless myriads along the coast.

And so the Eskimos spend their summer, dwelling in tents, fishing and drying their catch upon the rocks, until by the end of September the main rush of the codfish is over, and the people make their way home again to their villages bringing their fish bundled ready for the market.

From the beginning of July to the end of August, and even later, the summer air of Labrador swarms with countless hosts of blood-thirsty gnats. The supply is unlimited. The first bites may produce really alarming results, but after the first summer one seems to get inoculated, as the natives pay very little attention to them.

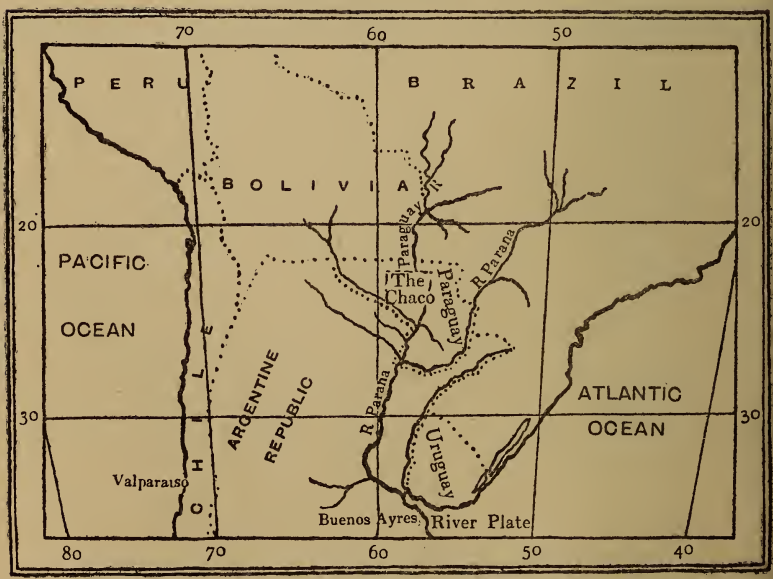
At all the older villages the people have huts of wood or turf—iglos the Eskimos call them. What unsavoury dens they were! Imagine a thing that looks like a heap of turf or sods, with a battered tin pipe sticking out of the top, and a long low tunnel leading up to one side. Inside there is a lining of smoke-blackened boughs and trunks of little trees, all shiny with grease; a small allowance of light filters dimly in through a membrane of seal's bowel stretched across a hole in

the roof, and the door, hanging limp upon its seal-hide hinges, permits the only suggestion of air to waft sluggishly along the tunnel porch. But the smell! There is nothing like it! These iglos, however, are getting few and far between, and little wooden huts are cropping up like mushrooms.

During Dr. Hutton's stay in Labrador he saw very little of the old snow-house dwellings. They have vanished except in the neighbourhood of Killinek and some other parts of the north, and all that he saw of them was on his sledge journeys. But snow houses on sledge journeys are but poor imitations of the real thing with its ice-window and its carefully jointed wall and porch, and especially its luxurious size.

[The information contained in this chapter has been derived from Dr. S. K. Hutton's book, *Among the Eskimos of Labrador*, by kind permission of the author.]

EL GRAN CHACO



THE PARAGUAYAN CHACO AND SURROUNDING STATES

CHAPTER V

THE SAVAGE TRIBES OF THE PARAGUAYAN CHACO

Some years ago the Church of England South American Missionary Society began a work in the Paraguayan Chaco of which Barbrooke Grubb was the pioneer missionary and explorer, and where he has worked, and is still working in the heart of the Indian fastnesses among the tribe of the Lenguas, for more than twenty years. His name may be little known at home, but in South America he is recognised as the greatest living authority on the Indians of the Chaco. The Roman Catholic Government of Paraguay are so alive to the value of the good results effected by him that they conferred on him the title of "Pacificator of the Indians," and have accepted his geographical notes as the basis of an official map of the region.

El Gran Chaco—what does this name convey to the mind of the average person? Little or nothing. For hundreds of miles to the west reaching to Bolivia, to the north as far as Brazil, and southwards to the settled provinces of the Argentine Republic, there stretches a vast region almost wholly given up to barbarism. The two banks of the River Paraguay, which forms the eastern boundary, present an almost incredible contrast. On the one side civilisation, religion and refinement, on the other primitive barbarism, superstition and cruelty sit facing each other, as they have sat for hundreds of years, separated only by a few miles of water of one of the finest rivers in the world, presenting no obstacles to navigation. Again, the two sides of the river are physically quite as different.

On the west lies an almost dead-level plain, covering an area of some two hundred thousand square miles, while on the east hilly and undulating country predominates. The plain consists of alluvial mud, swept down in past ages from the foot-hills of the Andes, in which not a pebble or stone can be found. Innumerable stories of this inhospitable region, nearly all lacking foundation, and the rest distorted, were used to try and dissuade Grubb from "committing suicide"; it was a swamp, an impenetrable forest, a sandy waste, a land inhabited by cruel and treacherous people, reptiles and beasts! But, apart from all exaggeration, travelling alone among savage nomads was fraught with considerable danger, not so much on account of their enmity as from misunderstandings on both sides, and superstitious fears on theirs. But from unimpeachable records it is clear that expeditions have been annihilated, and that the Indians did not hesitate to kill foreigners even when in armed parties.

When Grubb received his orders to penetrate into the interior he refused all offers of armed protection, arguing that his best protection against the suspicions of the people as to his motives, would be the want of protection, and trusting to his own tact and resourcefulness. His plan was to assume at all times and in all circumstances an air of superiority and authority, knowing that the Indians respect only the strong, and any sign of weakness would be fatal to his purpose. He respected their laws and customs so long as they did not interfere with his plans. On arriving at a village he insisted, as far as possible, upon all the people ministering to his personal comfort, ordering them to perform certain duties for him, but at the same giving only such orders as he felt sure would be carried out. For it must be remembered that his was a situation in which diplomacy, tact and moral force were his only assets, and if those

failed him he was a beaten man, since resort to compulsory measures was out of the question. On one occasion he made arrangements to resume his journey early next day, but overhearing his attendants planning a hunt for the same time he wisely countermanded his orders, and gave them the permission they asked for, thus avoiding an awkward contretemps and loss of influence, and at the same time cementing goodwill by acceding to their wishes. His great opponents were, of course, the wizards, who knew that advance and enlightenment would undermine their power, but although he knew his danger he showed an unflinching and uncompromising front, and defied them to do their worst.

The death of a colleague obliged Grubb to take up his residence at Riacho Fernandez, an island in the River Paraguay, neither a desirable nor a beautiful spot.

An order to transfer his quarters to the heart of the Chaco was gladly received, and after some trouble with his guides he reached the village of Kilmesakthlapomap, where his sudden appearance caused the utmost astonishment, as also did his assumed autocratic behaviour, but his orders were executed without any demur. He took the precaution of sleeping upon his goods, and well it was he did so, for during the night he felt a hand cautiously groping under his head, but a loud yell put the would-be thief to flight.

After spending some months in the interior Grubb returned to Riacho Fernandez. During his absence Indians had broken into the stores of an English land company and had carried off a considerable quantity of goods, with which they had retired many leagues into the interior. Grubb felt that if the culprits were not brought to book his own position and authority amongst the natives would be endangered, so he determined to

make the attempt. He discovered the village in which the delinquents had taken refuge. He assailed their character in vigorous terms in spite of all attempts to intimidate him, and after a heated discussion they agreed to repay the value of what they had stolen in skins and feathers, but only on condition that he promised to go with them to the foreigners, and afterwards to return and live with them. To this he agreed, but took the precaution of remaining in the village until the necessary amount of skins and feathers had been gathered together.

After paying the compensation, Grubb took up his quarters in Neantamama, the village of the culprits. A hut was built for him of palm logs, and thatched with grass. There was no door, but the opening was filled with a bush as a guard against inquisitive dogs. The table consisted of four palm stumps driven into the ground, with a deer-skin stretched over them. The bed was a sheep-skin spread on the floor. Personal effects were suspended from the roof in Indian net-bags. One night, after having procured some meat, and hung it from the rafters, he was disturbed by a rustling amongst the leaves and grass which lined the walls of the hut, and perceived a black shaggy head worming its way through. Swiftly Grubb seized the hair at the back of the head, and pinned the face to the ground. On asking who it was a muffled voice informed him that it was "Alligator stomach," and that fearing for the safety of the meat he had come to safeguard it. After a few homely truths Grubb roughly thrust the head through the opening and retired to bed.

This attempt at theft was by no means an isolated case, for whilst at Riacho Fernandez he was gratified at receiving repeated presents of vegetables from the chief and his people, for which he recompensed them. But one moonlight night, being in a restless mood, he

took a turn round his own cultivated plot of ground and discovered the chief and his followers industriously digging up his vegetables. So that was the source of their generosity! Their disgust at being discovered may be imagined.

Grubb had persuaded the people of Neantamama to forsake their nomadic habits, and settle down to agricultural pursuits. A suitable place was selected named Thlagnasinkinmith. But whilst preparing for the move his hut caught fire, and he lost all his possessions, including his clothes, so that, until he could obtain a fresh supply, he was compelled to travel in Indian fashion, clad only in a blanket. This, although uncomfortable, and even painful to Grubb, afforded the natives much gratification. They decorated him with some necklaces and an ostrich-feather head-dress, and nicknamed him "The Dandy."

Huts were soon built on the new site, and plots of ground laid out for gardens. But all was not smooth sailing, for an attempt was made to poison Grubb. An old woman fell ill, but recovered under his care; the chief's child then fell ill of bronchial pneumonia which ended fatally. The chief was angry that Grubb had not cured the child as he had the old woman. One day, casually looking into his kettle in which water was boiling for tea, Grubb saw some strange leaves which had not been there before. He made inquiries, but, of course, all professed ignorance, and so he could do nothing else than fill the kettle with fresh water, but he felt no doubt that the attempt on his life was associated with the child's death.

Grubb had from the very first made a strong stand against intoxicating liquors, especially the vile stuff imported from other countries. One day he was mixing a draught made up from a prescription against malarial fever, in which there was a small quantity of

alcohol, but the chief ingredient was quinine; it was a particularly bitter and nauseous concoction. A native who was watching him rather suspiciously smelt the bottle, and remarked that it smelt like foreign liquor. So Grubb promised to give him some on condition that he told no one. The man's eyes sparkled with delight, and the promise was readily given. The draught was offered and eagerly tossed off. But his stomach revolted, and with a look of intense disgust he exclaimed, "That is not foreign liquor!" He never again expressed a wish to try patent beverages, and Grubb believes that the secret was religiously kept.

During the early years the Indians formed various impressions concerning Grubb's presence among them. Some believed that he was exploiting the country for timber or anything else of value; others, that he was a criminal who had been cast out of his own tribe; and others, that he was a powerful witch-doctor, but whether his presence was for good or ill was doubtful. This last opinion was the most prevalent, and the supernatural powers ascribed to him were marvellous. The witch-doctors naturally regarded him as their greatest opponent, but the common people rather welcomed him than otherwise, feeling that his presence among them added to their strength and gave them a position superior to that of the neighbouring tribes and clans.

Some idea of the general aspect of the country may be formed by picturing an Indian village, situated on a piece of open land. At a little distance to the north flows a sluggish river, the current so slight as to be almost imperceptible. The banks are thickly covered with weeds, bulrush and papyrus rising high above the rest, and dense masses of floating water-lilies spread

out at the roots of the trees. Dark tree trunks which have drifted down in flood-time rise here and there out of the water like huge, ugly reptiles. The stream, which is in reality about fifty feet wide, can only be recognised by a little clear water free from weeds in the centre. Close to the bank is a fringe of palm trees, which rear their tall branchless stems forty feet or more into the air, crowned by a single head of green fan-like leaves. The remains of last season's brilliant green crowns droop below in a cluster of dead leaves. A few shady trees are dotted here and there, which form a welcome contrast to some headless palms and dead stumps—killed by the destructive palm-beetle. On these gaunt stems lazy water-fowl are perched, calmly viewing the scene around them. In the water an occasional splash is heard as a sluggish fish leaps at a water-insect or seeks to escape from a fierce foe beneath. Here and there what seems to be a dead black log is visible, but what in reality is an alligator asleep, or slowly moving among the reeds.

To the south, about a mile from the village, stretches a line of dense, dark forest, with small clumps of trees, and copses lying between. To the east lies a long stretch of low, damp, grass-covered ground, thickly studded with fan-leaf palms. The grass, unlike that of an English meadow, is tall and rank, and winding among the palm trees can be seen a single track worn by the feet of men. To the west stretches an immense ant-hill plain, covering fifteen thousand acres or more of very low land, with two or three inches of water lying upon it, a few palms, and only an occasional clump of trees. A dreary waste is this, thickly studded with ant-hills, three, four, and even five feet in height, and inhabited by teeming millions of industrious ants. A clear blue sky, without a cloud, spreads as a canopy above, and a blazing sun pours down its fiery rays, while the air

resounds with the croak of frogs, the screech of water-fowl, and the buzz of myriads of insects.

The village consists of two lines of most primitive dwellings, constructed simply of boughs of trees fixed into the ground, which are interlaced together, and covered with grass and palm-leaves loosely thrown on. A few utensils and skins form the sole furniture. A fire smoulders a yard or so in front of each shelter. Women sit here and there gently swinging a baby in its string hammock or industriously spinning. One may be seen seated at a loom, made of four branches of a tree, weaving a blanket for the master of the house. The other women sit in little groups, passing round the pipe and gossiping.

Two or three old men sit about, flicking off the troublesome flies, and apparently thinking of nothing. A few children—very few—play about in nature's garb. The men are away hunting the ostrich or the deer, or searching for honey; others are fishing with hook and line, hand-net or fish-trap, and even with bow and arrow.

At sunset the scene changes entirely. The flies have given place to mosquitoes, the fires are all blazing, and cooking goes on busily. The glare throws up these strangely attired and painted savages, with their white ostrich feathers gracefully waving to and fro. The dense forest in the background, with the stately heads of the palms silhouetted against the clear tropical sky, brilliant with stars, completes a picture which words are inadequate to describe.

How different a few weeks hence! The visitor will find the village abandoned, only the charred skeletons of the huts remain to tell the tale that a death has taken place, and that, for fear of the spirit of the departed the people have fled to another spot where they will be free from ghostly visitants.

WOMEN READY FOR THE "PUPHEK" DANCE OF THE "YANMANA" FEAST

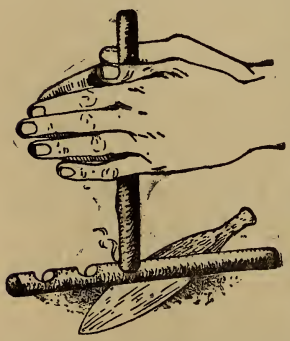
This particular dance takes its name from the bunches of deer hoofs attached to the long canes. When struck on the ground they produce a loud jangle, to which the dancers, numbering from ten to twenty, keep step.

Change the scene to a great swamp, with little islands dotted about, and on one of these islands stands a similar Indian village. But here the surroundings are very different. The village is near the edge of the swamp, which is fully twenty miles in length and from one to four miles in width. The water on the average is waist deep, but in places the traveller is forced to swim, and this with great difficulty, owing to the matted and tangled vegetation. The bulrush and papyrus are found everywhere, and dozens of other water-plants are interlaced into an impenetrable mass, some of which are thorny and lacerate the flesh. Progress is impossible in this swamp, except along the narrow paths which have been made by the natives. Once off the high ground and in the swamp, the tall reeds, towering on all sides above one's head, make it utterly impossible to see anything but the sky, and here the uninitiated would soon lose their way. Neither is travelling in such a wilderness free from danger. Large water-snakes, and not infrequently alligators, are to be found, and occasionally even venomous snakes, coiled up on the matted undergrowth, their forms, owing to the similarity of their colours, being hardly distinguishable from the vegetation. The island itself is covered with thick undergrowth and scrubby trees, with a fringe of palms encircling the whole. Such a place is dreary in the extreme, and especially on cold, cloudy and wet days, when the poor inhabitants huddle together or crouch for warmth over their fires, seemingly bereft of all life and energy.

The Indian is a nomad; first, by nature; second, from the exigencies of his life; third, owing to superstitious fears. If his mind becomes imbued with the idea that the place is haunted, he must change the locality. He is sociable, and his habits are of the simplest. He sleeps out of doors unless the weather

be bad, waking at intervals to warm himself, light his pipe, or have a chat. Dogs are numerous, and fight and bark the whole night through. They are of no particular breed, and, poor beasts, have a terrible struggle for existence. Fleas swarm at all seasons; mosquitoes are more than a plague, and the Indian is afflicted also by the *garapata* or tick which frequently causes a painful sore lasting for months. Sandflies, too, are a microscopic pest, excessively irritating.

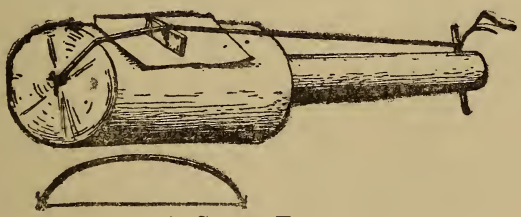
The covering of the men is the home-made blanket, fastened round the waist by a belt or slung over the shoulder in the fashion of a toga; that of the women is a petticoat of skin, laboriously softened by hand. The most valued and expensive article of head-dress is a broad woollen band, to which are sewn diagonal lines, squares, or circles of small buttons cut from snails' shells. The top is fringed with bright scarlet feathers taken from the spoon-bill or flamingo. This head-dress is regarded as a charm by the wearer, especially against the evil spirit of the swamps. They are much prized in consequence, and are worn chiefly when visiting, feasting, or during courtship. The buttons referred to are made by hand, and a tedious process it is. They are strung into necklaces, sometimes six yards in length, and represent money. Such a necklace would represent the value of a sheep. Others are made of teeth, bone, and various materials. Wooden ear discs, armlets of lamb's skin, and anklets of the feathers of the rhea, are also used for personal adornment.



Means of Obtaining Fire

The Indians smoke, but not to excess. The tobacco is stripped from the stem, pounded

and mixed with saliva, then formed into cakes and strung on a string for convenience. Fire is obtained by means of a flint and steel or by rubbing two pieces of a soft kind of wood together, one piece being, so to speak, drilled into the other by the palms of the hands. Gourds, naturally, play a very useful part in the domestic *ménage*. Musical instruments are few in number, and comprise a bamboo flute, bone and wooden whistles, drums, and a kind of crude fiddle. Sharpened bamboo makes a very effective knife, and even at the present day hard wood knives are preferred for some purposes.



A Crude Fiddle

The Indians have no knowledge of writing, but they have roadway signs which are perfectly intelligible to themselves. The principal weapons, both of the chase and of war, are bows, arrows and a heavy hard-wood club. The arrows are made from cane, with barbed heads of various hard woods, with two feathers. Gardening on a large scale does not hold out many attractions, for nature and the insect world seem to combine in waging constant war on the unfortunate husbandman. As the Indians are nomads, dwellings are erected only as temporary shelters from storm or heat. One kind of hut is circular in form and composed of branches, rushes, grass, and palm leaves ; another kind is made of mats which the owner transports from place to place with his other possessions.

Strange as it may seem the chief means of subsistence of the native Indians is by fishing; but the Chaco is a land of contradictions. The reason for this, however, is not far to find. The hard arid plain over which the traveller rides to-day, may, on his next visit be a swamp extending for miles, five feet or more in depth, teeming with eels, mud-fish, and other forms of life, including an occasional alligator, and frequented by numerous water-fowl. The eggs of the fish are deposited, and when a drought comes, are protected by the cake of hard dry mud on the surface to await the next down-pour, when they are hatched out. Fish-hooks of bone or wood are used, as well as nets. Fish-traps of wicker-work, very similar to lobster-pots, also are used. In deeper water, where it is clear, they frequently shoot the larger fish with bow and arrow. Eels and mud-fish are speared. Occasionally they capture a large water-snake, averaging about nine feet; the flesh is coarse, but the bulk makes up for the lack of quality.

Wicker Fish-trap

Alligators are sometimes speared when they are asleep. Another, but dangerous method, is to form a line across a stream while a few others drive the animal down. As a rule the alligators when disturbed make for the water, but on one occasion when Grubb was in his canoe collecting poles one of them confronted him as he was about to land. The brute showed fight so Grubb thrust the paddle between his jaw. As he made nothing of this a pole was substituted and rammed well into his body, of course killing him. Trussed in this fashion it was towed home, greatly to the amusement of the Indians. Dangers attend the sport of fishing; more dangerous than an encounter with

alligators or large water-snakes, because unseen. The sting-ray fish, for example, lies hidden in the mud of the swamps, and especially of the larger streams. When trodden upon by the fisher it retaliates by thrusting its powerful sting, rising as a fin from the back, into his foot, sometimes penetrating from the sole right through the instep. This causes not only intense suffering, but sometimes results in serious complications, and even death. A less dangerous, but more common, foe is a small fish with very sharp teeth, capable of biting through thin wire. It frequently attacks the fisher, taking away a piece of his flesh.

Poisonous snakes lurk in the tangled vegetation. On one occasion when Grubb was clearing a passage through a swamp, and bending down to cut at the roots of the undergrowth, one of them struck at him, but an Indian standing by dealt it a blow just in time with his bush-knife. The Indians are adepts at throwing with short thick sticks, and capture many water-fowl, whether swimming or on the wing, at a distance of forty feet. The jabiru, a species of large stork, affords an easy target and a substantial meal. Perhaps the most valuable game of the Chaco is the rhea, not only on account of its flesh which is considered a delicacy, but also for its feathers, which are used for personal adornment and for barter.

There are various ways of hunting the ostrich. If in a palm forest the hunter binds the leaves of a palm tree together and fixes it to his head and shoulders and easily gets within range of the bird without further concealment. But should be he hunting in an ant-hill country, he uses a bunch of creeper instead, such as crowns the head of every ant-hill. In open scrub country the hunters block the open spaces between the copses with brushwood. These obstacles the foolish bird could easily leap, but he persists in following the

line of brushwood, and is thus easily shot. In open country the bird is often chased on horseback, the hunters using the lasso or *bola*, a long hide rope weighted at the end, which twines round the legs of the ostrich and trips it up.

The Indians are clever mimics, and use this power to great advantage in imitating the cries of certain birds and animals. They are especially clever in stalking deer, and Grubb has on several occasions been prevented only in the nick of time from firing on the hunters in mistake for deer; even the Indians themselves have been thus deceived.

Wild pigs are found in two varieties in the Chaco, the smaller and larger "peccare," the former being by far the more formidable. Frequently Indians in hunting these animals are forced to take refuge in a tree. The pigs move about in herds, sometimes thirty or forty in number, and the natives assert that they sometimes surround and kill a jaguar which has been tracking them.

One of the most peculiar animals found in the Chaco is the ant-eater, of which there are two kinds. The great ant-eater measures about seven feet from snout to tail, and is said by the Indians to succeed sometimes in killing the jaguar. They are said to carry their young on their back.

In addition to these beasts there are the tapir, maned wolf, fox, armadillo, tiger-cat, carpincho (river-pig), nutria (an animal resembling a beaver, but smaller), otter, iguana, and a number of smaller animals.

The puma and the jaguar are the two largest carnivora, but the former is not feared by the natives. The jaguar, however, they hold in great respect, and with good reason, for man-eaters are occasionally met with. They are said to be driven to this by old age, when their teeth are decayed. The natives construct an

BESIEGED

The peccaries drove the large jaguar in terror up into the tree trunk.

ingenious trap to catch the animal. Selecting a path on which they have detected its spoor they fell a tree across it, but leave a small opening at one side. Across this opening they dig a pit in which is arranged a lasso so that it will encircle the jaguar's body without the animal being able to bite it through. The end of the lasso is fastened to a stout branch of a tree overhanging the path. The pit is then covered over with leaves and earth. Although naturally quick to detect anything of a suspicious nature the brute is so perplexed at finding his usual path blocked that he walks right into the snare. A native one day climbed a tree in search of honey, leaving his sandals and weapons on the ground. Looking down he saw a jaguar at the foot mauling his sandals, and started climbing higher to the slimmer branches where the animal could not follow him, but suddenly came upon a large wasps' nest. The infuriated insects showed their resentment, and the man's lusty yells soon brought his companions to the spot. When they saw the situation they took refuge behind trees and soon put an end to the brute. They then returned home with the carcase to enjoy a huge meal as well as the joke of their companion's predicament.

Travelling in the Chaco is far from being a pleasure jaunt, in fact it is full of discomfort and often danger. On one occasion Grubb with some native followers, amongst whom was a wizard, reached a small river in the darkness of a pitch-black night. Grubb made for the usual crossing, but the wizard insisted that there was a better ford further down. This they tried and soon found themselves floundering in mud, so they retraced their steps to the first crossing. The dogs he had with him refused to cross, and Grubb bade his companions cross before him. This they did, but when he himself was half-way across with his dogs his

companions set off at full gallop and disappeared in the forest. Grubb followed as well as he could but soon lost his way. He called out, but only a faint response came from the distance. Later on, wet, cold, mud-spattered and much worried by mosquitoes he was rejoined by the natives, who assured him there was a devil at the crossing which the dogs had seen, hence their reluctance to cross. On arriving at the village the wizard spread the story that Grubb had been attacked by a devil who caught him by the leg and nearly unseated him, and that in his terror he had fled into the forest where he had been lost, all the time calling piteously on the wizard to help him. It took years of explanation to convince the people that Grubb's own version of the story was the true one.

Hearing that there was a large feast being held in a neighbouring village, Grubb determined to visit it. His reception was rather a mixed one, as many of the feasters were in a bemused condition, and the chief accused him of having killed his horse by witchcraft, so preferring not to take further part in the festivities Grubb retired to his own quarters. During the night he called for water, but the man who was called, being in a muddled condition, brought beer. Much amused at Grubb's refusal to drink it he calmly sat down and finished it himself. But the rest of the night he was possessed by the idea that Grubb was calling for beer and kept bringing supply after supply, the last of which, a calabash containing about two quarts, he succeeded in spilling all over him ; so with beer-sodden garments and tormented by mosquitoes Grubb spent a comfortless night.

Wishing to return to his headquarters Grubb applied for a guide to the chief Mechi ; but none being forthcoming Grubb insisted on Mechi acting in that capacity, but he was so intoxicated that he kept falling off his

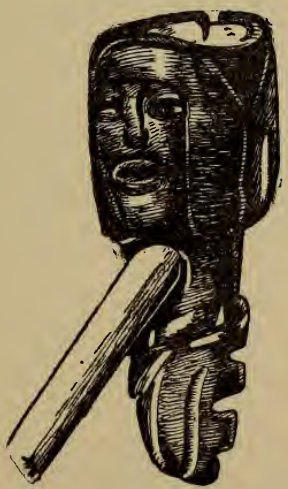
SECTION OF A LENGUA WOOLLEN BLANKET

The only male attire. The whole process of manufacture is the work of the women, and the result is remarkable considering the primitive materials at their disposal. Various designs are introduced denoting snakes' skins, palms, cross-roads, etc., and in some cases there is a striking resemblance to Inca designs—pointing to the possible origin of the Lenguas.

BLANKET WEAVING

The most primitive loom in the world. Two forked uprights and two horizontal branches. Upon this crude frame woollen blankets of very even and fine texture are woven.

horse, until the happy idea of getting a boy to sit behind him and hold him on, solved the difficulty. During this journey they encountered a dust storm, followed by terrific thunder and exceptionally vivid lightning. A torrential downpour soon put out their fire and chilled them to the bone. The rest of the journey was hard for both man and beast. Often the horses were tethered over their fetlocks in water. Frequent gullies were crossed where the water covered Grubb's saddle, and the horses were at times momentarily off their feet. On arriving at the larger streams they had to make rafts to transport their belongings, and across the smaller they swam with their goods, in instalments, tied upon their heads. After six days' journeying under these miserable conditions they were glad indeed to arrive at Thlagnasinkinmith.



A Lengua Pipe

CHAPTER VI

THE SAVAGE TRIBES OF THE PARAGUAYAN CHACO

As years passed by and Grubb's influence over the Indians grew, the work became sufficiently consolidated to enable him to leave on his first furlough to England. But before leaving it was decided to establish a mission on the West-South-West Chaco, on the borders of the Lengua, Suhin, and Toothli tribes. After serious consideration an Indian named Poit was authorised to carry out some preparatory movements on the frontier during Grubb's absence in England. He was at that time a most hopeful and capable adherent, and it was for this reason he was chosen. Seventeen head of cattle and other goods for barter were given to him, with definite instructions that he was to establish himself at a certain place, make a garden, barter the goods for sheep and goats, and the cattle also as opportunity offered. He was to do what he could to persuade the people to gather round as soon as men could be sent out to commence the work, and to impress on them the conditions of Grubb's residence among them. First, that no native beer should be brewed or consumed on the station. Secondly, that feasts must not continue longer than three days. Thirdly, that no infanticide should be allowed. Fourthly, that the people must work when called upon. Fifthly, that they must be prepared to carry mails to the River Paraguay, and bring out goods when required. Sixthly, that they must keep clear the cart-track which had been made, and that the peace which had already been established between the three tribes must be maintained.

Similar compacts had been made in other localities, and the results had been quite satisfactory. The natives had possessed cattle, but from one cause or another had lost all. Fresh cattle were introduced with the stipulation that none should be killed until they had increased sufficiently to admit of doing so. On two occasions only had this rule been broken and followed by tragic results to the offenders. In the one case the man's powder flask took fire, and he was badly scorched ; in the other the gun burst, and the man lost the greater part of his hand. To the untutored mind this was quite sufficient to deter any venturesome person from infringing the rule.

The natives, of course, had no idea of what a furlough meant, and as the months went by gave up all hope of seeing Grubb again. This idea so possessed Poit that he began to regard himself as the successor to the property left in his charge. He had been warned that he would be called to account, but preferred to take the risk. Consequently when Grubb returned, his alarm was great, and he did what he could to conceal or make good his defalcations. Other thefts had taken place on the station, and many incidents conspired to attach suspicion to Poit. Although Grubb's health was far from good it was necessary to commence work on the new station if the scheme was to be successfully carried out. Accordingly a start was made on foot with six Indians, of whom Poit was one. In the light of subse quent events Poit's actions were suspicious, but not to such an extent as to call for comment at the time, though the carriers did express surprise at some of his orders.

All went well for some time. Grubb had gone ahead with Poit, making for a suitable camping place for the midday halt. He frequently noticed that his Indians, who were carrying all his provisions and kit, were not

in sight, but he did not pay much attention to this, thinking they had lagged behind to gather fruit. He therefore rested beneath a tree, and sent Poit back to hurry them up. It was a long time before he returned bringing some provisions with him, and relating a story of how one of the men had run a thorn into his foot, and the others were helping him along, and would overtake them. It was on this night that Grubb noticed for the first time that Poit seemed preoccupied and strange in his manner, but put it down to various causes. Poit had in the meantime given orders to the Indians to return to the last village and there await Grubb's return, and gave several plausible reasons for their non-appearance, for they had had ample time to make up lost ground even if the story of the man with the thorn had been true. Grubb concluded that his Indians had deserted him, and felt grateful to Poit for his faithful adherence.

They had now reached Poit's own village, and Grubb instituted inquiries as to Poit's conduct during the time he was in England, and the replies were quite reassuring. Subsequent events showed that they were all leagued together to conceal the defalcations. The journey was resumed and the last Lengua frontier village reached. An attack of fever compelled Grubb to rest here for a day, and Poit advised him to send the fresh carriers he had secured on ahead, as he knew a short cut through the forest, and Grubb consented. While he was having his breakfast, Poit sat opposite him sharpening some iron-headed arrows with a file. Eventually the journey was resumed, but in the forest Poit confessed that he was uncertain about the best course to take; the bush was seemingly impenetrable, so he went off, as he said, to reconnoitre. After a while Grubb heard, just ahead of him, the crackling of bushes, such as would be caused by the progress of man or

animal. Grubb halloed for Poit, at the same hoping to scare the beast, if such it should be. Shortly afterwards he saw Poit peering through the trees, with a strange look on his face as of excitement and fear combined. Poit then joined him in a very small open space, not larger than a moderate-sized room, with dense undergrowth all around. Grubb ordered him to go ahead and break a way through. He replied, " Wait a minute ; I have forgotten the kettle " ; and went off to fetch it, telling Grubb to open a passage as much as he could to save time. Grubb did not realise that when he saw him ahead he had actually been manœuvring to get a fair shot at him, and that the strange expression he had seen on his face was the result of acute tension and fear of discovery.

He was bending down to clear a way, when suddenly he felt a sharp blow in his back, just below the right shoulder-blade, close to the spine. He rose up and saw Poit, about four or five paces off, with a look of horror on his face. He bade him come to his assistance, but he only cried out " O, Mr. Grubb ! O, Mr. Grubb ! " Then with a sharp cry of pain and terror, " Ak-kai ! Ak-kai ! " he rushed off towards the river, and was lost to sight.

Grubb remained perfectly calm and clear-headed, and Poit's real intent, with the whole series of his villainous devices and inventions, passed vividly through his mind. He felt no pain, which was quite natural, for a sudden shock such as this tends to deaden the nerves. Blood was spouting from his back, and soon from his mouth as well. The iron arrow-head, seven inches long by one inch wide, had penetrated so far that he could only get three of his fingers on the protruding part of the blade, the shaft, a cane one, being completely shivered. Realising that he might swoon he made for the river, and after being somewhat

revived by the water, he proceeded to extract the arrow. This caused him great difficulty owing to its awkward position, and having to work it backwards and forwards, up and down, in order to free it from its wedged position in the ribs. When extracted the point was bent and twisted from the violent contact with the bone. He then returned to the forest, picked up the few articles left by Poit, and re-entered the water and waded along in order to destroy all traces of tracks, in case his would-be murderer should return to complete his work.

The wounded man made his way to the beaten track, where he was discovered by a friendly Indian. He was helped to the nearest village, and there tended with every mark of sympathy. A night of horror and pain was passed, haunted by the dread of being buried alive. It is the custom of these people to bury a patient who is in a moribund condition, before sunset, before actual death has taken place. This is done not from feelings of brutality, but from a superstitious dread of being haunted by the ghost of the deceased person, should he die during the night.

News was sent to the Mission, and in the meantime the wounded man received many visitors who all expressed their sympathy, and left him with the consoling remark that he could not possibly recover, and that they had chosen a very nice site for his burial place. The Indians do not differentiate between a swoon and death, and therein lay Grubb's dread and danger. Next day he determined to make an attempt to reach the Mission. With infinite pain and difficulty some progress was made until they reached a village where a horse was obtained, but as the Indians use no saddles the jolting was terrible, and his Indian companions were obliged to hold him on the animal's back.

In certain villages through which he passed where

he was well known, and where he had formerly been cordially welcomed, Grubb noticed a curious change of attitude; it was not hostility, but rather bore the appearance of shyness or fright. This he subsequently learned was due to the report that he had actually been killed. They did not deny that the body was his, but had their doubts as to who the tenant might be, and attributed the marvellous way in which, in his critical condition, he had managed to cover the long distance from the scene of the attack to the probability that the soul animating his body was other than human.

The station was reached, and here Grubb remained, making slow progress towards recovery. The only set-back he experienced was shortly after his arrival, when lying asleep in his hut. A tame tiger-cat had also gone to sleep on one of the beams overhead. It lost its balance and fell down from the beam, unfortunately right on Grubb's chest, and he woke up with a great fright, to find it spitting viciously in his face. In his weak and nervous condition he sustained a great shock, and the cat was made to pay the penalty of death for its unintentional fall, the owner being afraid it might again annoy him.

Later on Grubb was taken to Asuncion, and from there to Buenos Ayres, where he was successfully operated upon. After recuperating in the hills of Cordoba he returned to the Chaco, where he was warmly welcomed, but many of the Indians were still sceptical of him; some even touched him to see if he were really flesh and blood.

There is no record within the memory of any inhabitant of this region telling of an Indian being slain by his own tribesmen for the murder of a white man, far less for an attempted murder. Before the attempt on Grubb's life many foreigners had been killed by

Indians within the recollection of natives still living, and similar murders have occurred since; yet no punishment was meted out to the criminals. On the contrary, an Indian who killed a foreigner was looked upon by his people as a hero, and worthy of all respect. Yet in the face of this record, Poit was executed in a cold-blooded and formal manner by his own tribesmen, and with their unanimous consent, for the attempted murder of a white man, who without doubt was regarded with suspicion and dislike by many, although he was loved and revered by others.

That Poit had to die the death of a murderer seems to have been their general verdict. Exactly by what means and methods they managed so speedily to get the opinion of the bulk of the people, scattered as they were over a large area, with only scanty communication, it is difficult to surmise. But one thing is quite clear, that the Indians far and wide were evidently unanimous, though doubts were entertained by a few that Poit's execution had really taken place.

Poit in his defence urged that Grubb was a comparative stranger; that he was not killed; and that his own tribesmen would not surely put him to death. But it was decided that he must die, and a pyre was prepared near to him. They then gave him an intoxicating drink—probably beer mixed with the seed of a grass which acts as a strong opiate. A short time was allowed to elapse, and then the two chosen executioners drew near. One smote him several times on the head with a machete, or long knife, while the other stabbed him repeatedly in the abdomen. His body was then placed on the pyre and burned to ashes. When all was consumed, the ashes were taken up and scattered to the winds.

Grubb used his utmost endeavour to save Poit's life, but with no avail; he did, however, succeed in rescuing

A Bottle-trunk Tree

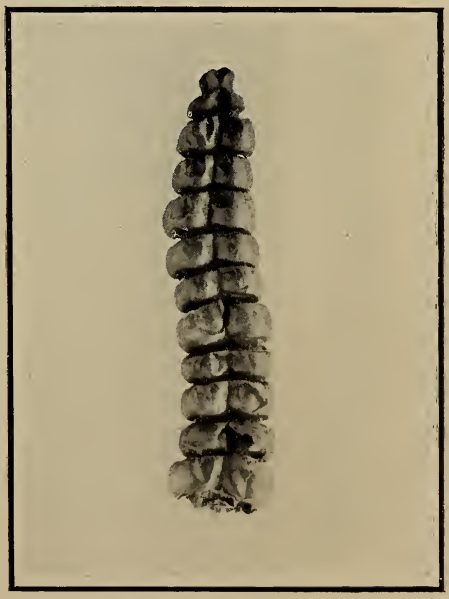
The bark is very hard and thorny, but the heart is oft and pithy—eminently suited for hollowing out to erve as a dug-out canoe. The tree produces a beauti- ul lily flower, and the seed-pods contain a quantity of ilk-like substance.

A Lengua Roadway Sign

The stick denotes that a party of Indians have gone in the direction it leans towards, which is further emphasised by grooves cut in the ground. They have gone to a feast, indicated by the bunch of feathers. The smaller stick with a fleece of white wool and a cob of maize shows that a sheep will be killed and eaten, together with maize.

A Ratile-snake in the Grass

Photographed alive in the act of striking. The bite is very poisonous, and the danger to the naked feet and legs of the Indian travelling through the long grass is evident.



The Rattle of the Rattle-snake

The end of the tail—the continuation of the back-bone—is sheathed with loose ring-shaped sections of a horny substance. The wagging of the tail produces the rattling sound. This snake is supposed to acquire a new ring to its rattle each year it lives.

his family, who, according to custom, would have perished with him. Far from weakening the efforts of the Mission party, and driving them in disgust out of the country, this tragedy served only to stimulate them to greater efforts; and their stern self-sacrificing endurance and determination to adhere to their purpose exercised a great influence over the people, who admire courage and respect the man who shows it.

CHAPTER VII

THE SAVAGE TRIBES OF THE PARAGUAYAN CHACO

Grubb was for many years regarded as a powerful witch-doctor, and the people at length regarded his presence amongst them as undesirable, so they determined to get rid of him. Their plan was to surround his hut with brushwood, and set fire to it, and to kill him when he rushed out dazed with fire and smoke. They also planned to build small shelters along the route which he usually took to the River Paraguay in the east, so that his spirit being attracted by them might be induced to leave the country finally. Fortunately the plan was not carried out.

Every village has its witch-doctor, whose duty it is to protect his own people from supernatural evil, and by means of his sorceries to avenge them when wronged. The office is not necessarily hereditary, although it does sometimes run in families. Their secrets are jealously guarded, but the greater part of their art is pure deception, and Grubb met only a few really clever wizards. Their training consists in severe fastings, abstention from fluid, and solitude. They eat a few live toads, some kinds of snakes, and a certain kind of small bird. Some of them understand to a slight degree the power of hypnotism. They are necessarily students of nature, as they may be called upon to regulate the weather according to requirements. They are called on to exorcise evil spirits. Grubb one day saw a woman throwing herself about violently. Four men were holding her down while a witch-doctor was bending over her trying to drive out the evil spirit. Grubb saw

at once that it was simply a case of hysteria, and procuring some strong ammonia applied it to her nose. The effect was instantaneous, much to the astonishment of the people. The wizard afterwards privately begged for some of the liquid. Grubb allowed him to take a hearty sniff at the bottle, but the smell nearly overbalanced him. As soon as he could speak he emphatically declined to take any.

Grubb had brought a few hideous masks to amuse the boys. After their first suspicions had been allayed they determined to play a trick on the witch-doctor and presented themselves suddenly to his startled gaze. For one moment he was paralysed with fear, the next he was flying at full speed for the village, followed by the sarcastic remark that it was strange an expert in spirits should be so terrified when he met them. The Indians have a dread of hæmorrhage, and the wizard works on their fears by showing that such may happen to himself with impunity. He conceals certain beans in his mouth, and after some fantastic display spits out a quantity of liquid, apparently blood, but really the colouring matter of the beans.

A wizard with a great reputation reached the village one day. He could produce at will living insects from his mouth, to the great awe of his audience. Grubb desired to see him, and somewhat to his surprise he came to give his performance. He went through the usual contortions, thumping his head and pressing his stomach, then ejected into his hand several creeping, wriggling insects, and held them out for Grubb to see, with a triumphant look on his face. Grubb professed to be astonished at his cleverness, and gave him the present he had promised him. He then insisted on his sharing some of his food, at which the wizard seemed somewhat unhappy; but Grubb persisted, and in the midst of the admiring throng he had no alternative but

to consent. He took a large mouthful, and while he was endeavouring to masticate the food, looking at him straight in the face, Grubb said, " That was a clever thing you did just now ; you must really show it me again " ; but he only turned on his heel and went away. It was plain he had some more live insects in his mouth, and they evidently had become mixed with the food. He would have had to swallow it, otherwise he would have shown discourtesy. Swallowing the food would have meant swallowing the insects and slugs as well, so he assumed offended dignity and strode away.

On another occasion, feigning a pain in his arm, Grubb sent for old " Red Head," who, believing him to be in earnest, proceeded to spit upon the place, and after sucking the place produced three small fish-bones, which he asserted were the cause of the trouble, and had been placed there by an unfriendly wizard. Taking him unawares Grubb opened the wizard's mouth and produced several more fish-bones which he held up to view without comment. Needless to say old " Red Head " never forgave the exposure. For some time a wizard had been obtaining supplies of small English-made needles ; then an epidemic of " Needles " broke out in place of the fish-bones mentioned above ; suspicion was aroused, and when the supply of needles was stopped the epidemic died out.

There is a root found in the forest, of the size of a large apple, and supposed to be deadly poisonous to all but wizards. This power Grubb determined to test. He procured a root and offered it to the Indians who had assembled to witness the test. They scoffed at the idea. The root was then offered to the wizard who was present ; he took it and calmly bit a large piece out of it, chewed and swallowed it. Grubb then made as if to bite a piece himself, narrowly scanning the face of the wizard, for, he thought, perhaps he had some

antidote for the poison, but his face showed no emotion of any kind. Then taking his courage in both hands he bit a piece and swallowed it. No evil results followed, and Grubb proceeded to point the moral, namely, the folly of trusting the word of a wizard, for he himself had eaten of the root without evil result. "But," interposed the witch-doctor, "we all know that you were a great wizard, and therefore you could take no hurt!" Instead of scoring a point Grubb had lost one, for his good intention had simply confirmed the popular belief.

There was danger at one time of a rupture between the Lenguas and Paraguay, and a witch-doctor declared that he had power to charm the guns of the Paraguayans. Grubb, in vain, warned them of the danger of trusting to this, and offered to demonstrate its fallacy with his Winchester rifle on the person of the witch-doctor, but this offer was decidedly rejected by the latter.

One of the few conjuring tricks performed by the witch-doctors is that of spitting pumpkin seeds into the air, and immediately producing full-grown fruit. The trick is a simple one, performed with the aid of confederates who have the fruit concealed under their cloaks, and drop them on the ground as soon as the seed is spat into the air. When Grubb pointed out that this would prove a most useful trick in times of dearth, the argument appealed to a most practical side of their nature, and made a considerable impression upon them.

Adolpho Henricksen, founder of the Anglican Chaco Mission, died from exposure on the River Paraguay, but Grubb was informed by the Indians, when they were incensed against him, that he had better be careful because their witch-doctors had killed him by their sorceries. Taking them at their word, he demanded and obtained compensation all round for the injury done to his tribesman. For a long time afterwards

they still maintained that he had been killed by witchcraft, but, not caring again to be fined, the witch-doctors ingeniously denied having done this themselves, and attributed the deed to the wizards of the Caingua, a tribe to the north of Paraguay proper, thus maintaining the reputation of witchcraft and at the same time guarding themselves against further punishment.

There is, however, one is glad to know another side to the character of the wizards; they possess a certain amount of practical knowledge, and really make use of it. They know of many herbs which they employ as medicines. The bitter bark of a tree is known to allay fever. The malva, or mallow plant, is used in cleansing wounds, and so are other herbs. They have also a plant which relieves toothache, and others of greater or less efficacy are used in specific diseases. Snake-bite they often succeed in curing, chiefly by suction and by tying a ligature between the wound and the heart. They also have some idea of inoculation for snake-bite, using the fangs very carefully in scratching parts of their bodies. They practise massage with considerable success. Saliva is freely used on wounds, and to stop bleeding they apply clay or earth. They are very accurate in calculating the probabilities of recovery or death, judging principally from the appearance of the eyes.

Undoubtedly the most gruesome of all Indian customs are those connected with the burial of the dead. A death has taken place; the sun is fast sinking in the horizon. The village, which at noon was stirring with life and energy, is now desolate, save for six or seven solemn and awe-struck Indians, who have been deputed to carry out the last dismal rites. The body lies just outside one of the huts, covered with a reed mat. Presently two men approach, and, removing the matting,

they hastily wrap the body in a native blanket. Then, laying it face downwards, they lash a pole along the back, tying it at the neck and heels. Raising their gruesome burden upon their shoulders, in strange procession they wend their way to the forest in the fast-fading light.

A grave is hastily dug with wooden diggers, and the body, loosened from the pole, is forced into a sitting posture inside. Haste is necessary for the sun has already disappeared, and, according to their laws, the funeral ceremony must be concluded before the red glow has died out of the sky, and they have still the last rites to perform. When death seems imminent the dying person is removed from the village and laid outside, with a mat thrown over him, although he may be quite conscious. Quite close to him preparations are being made for a hasty departure. When the village has been abandoned, those appointed to attend to the funeral rites wait till the last possible moment—about half an hour before sunset—unless the sufferer has actually died sooner. But whether he is dead or not, if there is no possible hope of his living through the night, his funeral begins, in order that it may be completed before darkness sets in.

The rites to be performed alter according to the circumstances of death, but there is never any variation in the purification ceremony, the words at the graveside, and the position of the body in the grave. The burning of the village and the destruction of the property of the deceased are always customary.

A very common rite is the cutting open of the side, and the insertion into the wound of heated stones, an armadillo's claw, some dog's bones, and occasionally red ants. The wound is then closed. In cases where haste is necessary the sick person is not always dead when this operation is performed. The body is then

placed in a sitting position, facing the west. The grave is then filled up, and certain plants are placed above it.

Grubb was once invited to attend a burial, which was a mark of great esteem. When the burial rites had been performed he was asked to say some words. As the shades of night were falling the members of the party did not pay much heed to what he said, especially as his knowledge of the Lengua language was somewhat imperfect and they were impatient to get home. All went well for a time; Grubb had persuaded the people not to destroy or desert their village, but they had taken the precaution of removing their dwellings so that Grubb's hut was interposed between them and the burial place. About midnight he was awakened by a terrible uproar amongst the people. The few guns they had were being fired off, arrows were whizzing through the air, women were shrieking and beating on the ground with sticks, children crying, dogs barking, and goats and sheep running hither and thither. Grubb hastily lit a home-made wax candle, and got from under his net. He had hardly done so before three men rushed into his hut, exclaiming that he was trying to destroy them. For some time he could make nothing of their accusations. They were terribly excited, evidently full of rage, and in a dangerous mood.

All went outside, and at the door stood two or three of the younger men who had been much attached to Grubb for some time; they informed him that the ghost of the buried man had been seen to enter his hut, where it remained for some time and then disappeared; also that the words he had uttered at the grave were an invitation to the ghost to pay him a visit—a most serious breach of custom; and that the people were greatly incensed and proposed killing him. Grubb saw that the moment was extremely critical, and that his

INDIAN STALKER, DISGUISED AS A CLUMP OF FOLIAGE

The inset clearly shows how the hunter may be mistaken for an ant-hill covered with vegetation, the bow and arrow being barely distinguishable. The stalker runs for some yards, and then stops dead at any warning of his approach, moving on by stages till within bow-shot. The raw hide belt is usually the only hunting dress.

only safety lay in keeping as calm as possible, for flight was out of the question. To show that he had no belief in the existence of the ghost he proposed to walk over to the grave. This seemed a reasonable proposal, and they all set out. But when they had gone some distance a discussion arose, some asserting that as Grubb had just had an interview with the ghost he would not be afraid to meet it, and so they all returned.

Finding nothing further could be done Grubb tried to appear quite indifferent, and returned again under his net. Doubtless they thought he had gone to sleep, and perhaps remarked on his coolness and bravery. But in reality he remained quite as wide awake as any of them for the remainder of that night. He heard afterwards that the cause of all the uproar was an old woman's dream, in which she saw the ghost. As the people had been in an exceptionally excited and anxious state of mind that night owing to the fact that they had adopted this innovation of remaining in a place after a death, their excitement was easily fanned to a flame when this old woman suddenly awaking, recounted her dream. Nevertheless Grubb's predicament was awkward and unpleasant enough, and he never knew exactly in what imminent danger he was at the time.

In this case Grubb had been a party to the burial, and had therefore been supposed, together with the others, to have done all that he could by rites and ceremonies to prevent the spirit from having any occasion to revenge itself upon its people, and the accusation of the Indians was that, in opposition to the whole object of the funeral rites, he had called up the ghost. The fact also that he had urged them to remain in the same village made any breach of honour on his part the more culpable, as it placed him under the suspicion of having laid special traps to bring about their ruin.

Purification by washing, and the drinking of hot water, follows the burial, and finally all the booths in the village are burnt to the ground. Mourning consists in painting the face black, streaks being made to represent tear courses. Near relatives of the deceased live apart for a month, because they are regarded as unclean.

One interesting feature of Chaco Indian life is the holding of periodic feasts. Their life on the whole is dull in the extreme, and these gatherings are looked forward to by them as among the great events of their lives, in bringing the people together and widening their friendships. Although feasts are connected in great measure with their religion, such as it is, they also partake very largely of the social element. They are seven in number: the *Yanmana* connected with the coming of age of a girl; the *Kyaiya* held to welcome the coming of spring, the summer solstice, and the autumn equinox; the marriage feast; the funeral feast; the war feast; on the arrival of guests, or after a successful hunt, or on any other occasion of rejoicing. Except in the case of the first two, feasts are held only at night, beginning at sunset and ending promptly at sunrise, and in all cases the night is the most festal time. In the absence of a moon, light is obtained by large fires and palm-leaf torches. All are gaily painted and covered with ornaments, their head-dresses of feathers being especially striking. Grubb himself saw the advantage of joining in these feasts as it brought him into closer and more intimate relations with the people, and helped to cement the good feeling between him and them, especially as he played his part thoroughly. He adopted a blanket, feathers, anklets, and an Indian shirt. The artistic decoration was undertaken by two women, who with sticks of red paint made from the seeds of the *urucu* plant drew the most

wonderful marking upon him. His head-dress was more troublesome to adjust, owing to his short hair, but eventually they turned him out evidently to their full satisfaction, and, bringing him a piece of broken looking-glass, bade him examine and admire himself. He was soon the centre of an admiring crowd, and he confesses that the transformation in his appearance was such that wherever he had happened to appear he would assuredly have attracted a crowd.

As serious quarrels are liable to rise at such festive times, a small number of men were told off each day and night to remain perfectly sober, in order to act as police in case of necessity ; and when trouble arose the women at once secreted all dangerous weapons.

The general idea of the Indians' character in the mind of the foreigner is that they are stern and morose. Grubb assures us that this is not the case, but that they are exceedingly light-hearted and amiable, delighting in the company of their fellows, and much given to feasting and merry-making. In their villages the sound of laughter is the rule and not the exception, and this with old and young alike.

Drunkenness is not one of the Chaco Indians' vices. They do certainly make an intoxicating beer, but it is not nearly so pernicious in its effects as the vile imported spirit. An old chief living near the River Paraguay had given way very greatly to the rum craving. He went into Grubb's hut one day in a drunken condition. When he kindly asked Grubb how he was and was told that he was suffering from a severe headache. " Ah," said he, " I told you that Paraguayan rum was no good, but you won't drink our stuff."

The Indian is essentially polite in his own way, and his is no superficial politeness. Once when Grubb was accompanied by Bishop and Mrs. Stirling they had occasion to cross a river in a dug-out. On reaching the

bank the Indian in the bow leaped out and offered his hand to Mrs. Stirling, but realising that it was covered with grease and dirt he excused himself then spat on his hand and rubbed it with a none too clean handkerchief, then again offered it! But his intentions were good.

[The information contained in these chapters has been derived from Mr. W. Barbrooke Grubb's book, *An Unknown People in an Unknown Land*, by kind permission of the author.]

ROUTE OF CAPTAIN HAYWOOD'S JOURNEY

CHAPTER VIII

A TRAMP ACROSS THE SAHARA

Captain Haywood had spent some years soldiering in West Africa, and had often wished to explore the ramifications of the Upper and Middle Niger, but the difficulty of obtaining sufficient leave had been an insurmountable obstacle. His chance came at last, however, when he found himself at Freetown, the capital of the British colony of Sierra Leone, with six months' leave due.

He determined to spend his furlough in a journey down the river from its source, making shooting excursions at suitable points in its basin, and directing his steps towards Timbuctu. From Timbuctu he proposed to cross the Sahara Desert, striking almost due north for Algiers. The strange tales he had often heard of this desert, and the curious wandering tribes who inhabit it, interested him and made him wish to ascertain for himself the truth of them. Gao is the name of a village further east of Timbuctu, on the bend of the Niger, and from this place Haywood eventually started on his journey across the desert.

Such an undertaking required very careful attention with regard to the baggage. It must be cut down to the least possible quantity, but at the same time no requirement must be forgotten. As far as Kidal he would have the company of one non-commissioned officer and six soldiers belonging to the Senegalese Tirailleurs. Thereafter, except for his guide and two servants, he would be quite alone.

There are comparatively few parts of the Sahara

which are absolutely deserted by mankind, for almost the whole of this lonely region has a population of nomads. These nomads, it is true, are very few in numbers, and rarely stay in one spot for any length of time. The desert nomad has perforce to be a hardy creature or he would very soon die of starvation or thirst. His wants in the way of food are small and easily satisfied, while he trains himself to exist, like his camel, on little water. Water is scarce everywhere, and is only found in wells, but it is rare that one has to march more than sixty miles without passing a well. In this portion of the Sahara there is a periodical rainfall which consists of three or four tornadoes, averaging possibly one or two inches in the year. These tornadoes come between the months of July and September, and it is due to them that the wells fill up.

Captain Haywood's first objective was Kidal, but the shortest route to that place was not taken, as the guide for some reason of his own reported that the wells were in a bad condition, which proved to be quite false.

Captain Haywood's plan was to do most of the marching during the night, starting in the evening, as the day grew cooler. He usually rode for the first two hours, and about sunset dismounted to rest his camel and to stretch his legs. If it was a moonlight night he used to walk for several hours, but on a dark night walking was not so pleasant. The country was usually open, and it was possible to march, even on a moonless night, without fear of the camels coming to grief.

On all sides a death-like stillness prevailed; for hours, and sometimes for days, they would march without seeing a single soul. For miles there would be no signs of animal life, then suddenly a herd of gazelle would come into view, feeding on the desert, scrubby grass, and at the sight of the caravan they would

scamper away, frightened at the unwonted sight of man.

Some of the camels began to show signs of fatigue, and several had terribly sore backs, which Haywood dressed with iodoform daily, and it was almost as painful to him to see them loaded as it was to the animals themselves. The negro soldiers were quite callous to the pain they inflicted when loading them.

The camel is a curious-tempered animal. He seems to have the same characteristic as most desert nomads. He dislikes mankind cordially, and takes no pains to disguise the fact.

To mount a camel he must be made first to squat on the ground. The right leg should be rapidly thrown over the saddle, lifting the left foot from the rein and placing it on his neck. The camel will then generally—but not always—rise with a most disconcerting jerk, growling loudly all the while. This is perhaps the most awkward, and even dangerous, moment for the unwary novice. On rising the camel first throws his head and body forward with lightning-like rapidity, when the rider must conform by equally rapidly jerking his own body in the reverse direction, otherwise he will inevitably lose his balance and be hurled to the ground. The Saharan camel is not a well-trained animal, so it behoves one to be careful when first attempting to mount an unknown beast.

After having mounted the rider will not persuade him to cease his angry grumbles for some little time. If he refuses to rise, as he sometimes does, the only plan is to tap more or less violently with the feet on his neck; but in every case the golden rule is to have patience.

One dark night the camels were hobbled in some excellent pasturage close to the camp, but when morning broke not a camel was to be seen. They were traced back along the route by which they had come

for fifteen miles! Although hobbled they had accomplished this distance by a series of little jumps. It was not the slightest use to get angry; when dealing with a camel meek resignation is the virtue to be cultivated. A camel's walk is a most tiring motion. He sways the rider from side to side as well as from front to rear. It is something like being in a ship when she is both pitching and rolling, and makes one painfully stiff and sore.

The wells at Tinderan were to be the next halting place, but the Arab guide developed ophthalmia and his place was taken by a Tuareg who promptly lost his way and instead of going in a north-easterly direction was gradually heading south-east, leaving the wells behind them. A halt for the night was called, and all went waterless to rest, for very little remained, and unless the wells were found on the next day matters would be very serious. But to their great relief the wells were discovered; the guide had led them out of their course *only* eight miles!

To the ordinary observer Tinderan was hardly an attractive-looking place. It lay in the midst of typical Saharan scenery. Wastes of yellowish white sand surrounded it on all sides. Besides the wells, there was, of course, nothing else at Tinderan, for that was simply the name of the wells. There were some half-dozen of them, consisting merely of holes excavated in the sand, and not discernible until one actually walked up to them. But to the desert traveller, tired and thirsty, the surroundings mattered little; the chief point, and the only point, was that here was water and plenty of it.

The heat had so far been so great that all had suffered to a greater or less degree. Haywood's skin was as tender as a child's; his face, arms, and knees were terribly burnt and swollen, and he suffered torture

every time he touched or bathed them. Even the native's hard feet became fearfully blistered and swollen by the burning heat of the rocks. Raids on the water-skins during the march were frequently attempted, and the N.C.O. of the escort received the strictest orders to keep the men from the water. If they had been allowed to drink all they wished the water supply would soon have been exhausted, and it is always a sound principle to arrive at a well with some water in the water-skins, for it is never certain in the desert that the wells will not be found dry.

After a twelve days' march the party reached Kidal. What a pleasant spot it seemed! Here there were actually two houses, or rather huts, built of mud. Further, there were about a dozen date palms surrounding the little post. The spectacle of real trees and real green leaves once more was most refreshing. One need no longer stint oneself for water. At Kidal Haywood secured the services of an Arab who had the reputation of being a sure guide. There were some very fine camels here belonging to the detachment stationed at the post; and had been bought from the Ifora Tuaregs. These people breed a very fine class of "mehari," their riding camels being renowned for their power and endurance throughout the Central and Western Sahara. The Iforas are the Tuaregs who wander in the Adrar country.

The chief peculiarity of these people is that they always wear a veil over the lower portion of their faces, which conceals all their features except the eyes, and sometimes the ears. This veil is made of blue stuff, and is called a "litham," its chief service being to prevent the wearer from being choked by the clouds of sand which are ever blowing about in the Sahara. Moreover, it prevents thirst to a remarkable degree.

The Iforas share the usual dislike of the Tuareg to

contact with mankind, and with Europeans in particular. They possess an unenviable reputation as first-class looters and highwaymen, but in this respect the Iforas are by no means the worst offenders amongst desert tribes. They are said to be plucky in war, but will avoid fighting when possible. They have two distinct classes—the Thaggareen, who are the nobles and govern the various clans into which the tribe is split, and the Imrads, or middle class. All menial work is done by slaves, called "beylas." These slaves have been captured at various times from different negro tribes during Tuareg incursions into the Niger country, or else when a caravan has been plundered. They are armed with spears, swords, and shields. They dislike a rifle, and seem to regard it with a strange mixture of contempt and fear. The swords are of two kinds: one is a cutting sword worn at the side, and the other, called a "tellak," is about twelve inches long, resembling a dagger, and is worn on a leather bana on the left forearm, just below the elbow. The shields are about six feet high, made of bullock or sheep hide, and are sometimes rather picturesquely painted with strange devices on the middle of the front face.

Tuaregs are rather a handsome race. They are usually tall and slimly built, but very wiry. They have well-cut features, blue eyes, and a pale complexion. The origin of these people is shrouded in mystery. They are wonderful camel masters, and understand more about these animals than anyone in the Southern Sahara. They can identify a camel in a most accurate manner by observing his tracks in the sand. Tuaregs have been known, on observing the tracks of several camels at a well, to state that such a one was the camel of such and such a member of his tribe and that he had been there two or three days previously. They will tell correctly almost to a man, how many a certain

caravan numbered; and when it is recollected that camels usually follow each other in single file, it will be understood that this is no easy matter.

At Kidal Captain Haywood was obliged to get rid of his tin bath. To him as to most Englishmen the daily "tub" was a necessity, but a bath in the Sahara was an unheard-of luxury, with water at such a very high premium, so, as being cumbersome and useless, and as being an object of intense dislike to the camel, it was presented to his host as a return for his hospitality.

This country is known as the Adrar of the Iforas, and round about some of the wells are found evidences of a former sedentary occupation, such as flint arrow-heads, small stone axes, pottery, foundations of buildings, and such-like remains, showing how different must have been the conditions from what obtain at the present day.

The second stage of the journey, from the French military post of Kidal to Insalah was nine hundred and fifty miles, and as the lives of Captain Haywood and his followers depended on his camels he secured animals in better condition than those he had brought from Gao, for this portion of the desert entailed crossing an arid region called the Tanezrouft in which there was no water for two hundred miles. At the wells of Abeibera quite an event occurred, for they met two traders from the oasis of Touat on their way to Kidal. This may seem a trivial matter to those who are accustomed to jostle their way along crowded streets, but in the Sahara where such meetings are rare, it soars to the importance of an event. Moreover, strangers may turn out to be armed robbers.

This meeting, however, was very friendly and was the signal for much tea-drinking. The Arab of the desert is extremely fond of tea, which he drinks with a great deal of sugar. The tea is stewed in a saucepan for about

twenty minutes; the result being a nauseating concoction very bad for the nerves. But the Arab drinks no alcohol, and very little water. During the tea-drinking a party of Tuaregs came to the well to water their sheep and camels. Haywood wished to buy a sheep or even a little milk, but nothing would induce the owners to part with either.

The country was now getting much wilder in aspect. The rocky ridges were higher, and "oueds" or dried-up channels of former streams were less sandy and more strewn with boulders. Bourassa was the next well, and the next to that Taoundert was only forty miles away. Taoundert, however, they found quite dry, without even a cupful of water in it, and the next well, In Ouzel, was another two days' march further on. There was very little water in the skins, so Haywood determined to push on with the greatest despatch of which the camels were capable. But disasters seldom come singly, and the lack of water was not going to be the only trial during the next two days. Halting only an hour for rest at Taoundert, he pushed on that night. It was imperative to reach In Ouzel as soon as possible as the water-skins were losing the precious liquid drop by drop, owing to the usual leakage which they all invariably develop.

The camels on the march were always tied in single file, one animal's tail being attached by a string to the next one's lower jaw. The order of route was, in front Haywood and the guide, in the centre his servant Musa, and in rear the camel-driver. It was necessary to have someone in rear, for sometimes a camel would break his string and wander away from the rest of the caravan. They had been marching for about six hours when Haywood happened to drop back for a short time. He noticed to his dismay that two camels, those carrying the food supply, were missing. The camel-driver, a

very sleepy Arab boy, had mounted one of the animals in the middle of the caravan and was calmly sleeping on his beast. There was no sign of the camels, and it was impossible to say when they had strayed.

They could not afford to lose those camels, for they carried all the provisions; at the same time it would have been madness to delay the whole caravan when water was so scarce and time so precious. The remaining water was divided into two portions, and half was given to the camel-driver. He was threatened with all sorts of penalties should he dare to return without the lost camels, and sent off to look for them, while the rest proceeded on their way to In Ouzel. Next day the water was finished, and at midday a frugal repast was made off the reserve ration always kept in a haversack. The meal consisted of a handful of dates and a little "couscous." This latter consists of wheat used for Timbuctu bread, prepared in a particular way. The wheat is unhusked and steamed for some hours. It is dry and very portable, at the same time it softens quickly in a little water and is easily digested. It can be carried in a bag slung across a camel, and will keep for months in this manner.

Their throats got parched, and their tongues began to swell from heat and thirst. How they longed for the sun to set, and the cool of the evening to relieve them a little from some of their torture! But that night there was no time to rest, they must march on in spite of their fatigue, so they trudged wearily on. When the following day they arrived at In Ouzel they were all thoroughly exhausted, and the craving for water was something pitiable. Even the guide, that hardy desert wanderer, rushed to the well as soon as it came in sight, hastily lowering a small leather vessel, and drawing it up full of water. Their relief to see the water was beyond expression, for a horrible fear beset them that

perhaps this well too would be dry. Fortunately all came right in the end, and even the lost camels turned up that evening. Needless to say the camel-driver was not entrusted further with the rearguard.

Both man and beast required rest after this trying time, and it was determined to halt for three or four days at In Ouzel. This was the more necessary as the next stage of the journey was across the Tanezrouft, an arid region extending for many miles, without a single well, and to cross this inhospitable tract with camels in inferior condition would be madness.

The halt at In Ouzel was anything but pleasurable, for a series of terrible sandstorms came on, and Haywood had an attack of fever. His tent was blown down right at the commencement, and the force of the wind was so terrific that attempts to pitch it again were hopelessly futile. Clouds of sand enveloped his bedclothes and himself. The suffocating heat of the desert air was intense, while the sand choked anyone who dared to open his mouth for an instant. A glass of cold tea or water became filled with sand. He used to hide his head under the bedclothes in desperate efforts to keep the sand-laden air from buffeting his face. Eating, drinking and sleeping were impossible, and all the time the fever racked his limbs and made his head throb in a maddening way. He had discarded his mosquito curtain, so he had not even that as a protection, though it is doubtful if it would have proved in the slightest degree effective. It was not till the evening before their departure that Haywood's fever left him, and he was glad to get out of his bed of sand, feeling very weak and shaky.

A few nomads were encamped in wretched hovels near the well, their flocks of sheep sustaining life on such scanty herbage as they could find. When one animal, more fortunate than the rest, espied one of these

tufts he would start gobbling it up as quickly as he could before his companions could claim a share. Another sight, both humorous and pathetic, was to see these animals in the middle of the day trying to get a little shade from the blazing heat of the sun. The strongest of the flock would take up a position behind the trunk of a mimosa bush, whereupon the remainder of the party would attempt to benefit by crowding close up to him, one alongside the other, until there was a long tail of these animals, huddled close behind each other, trying to get some satisfaction out of the shelter obtainable from the shadow of the sheep in front.

At In Ouzel the character of the desert had changed considerably. Here was the more popular conception of the Sahara. A soft white sand covered the landscape on every side. At each step one sank into it for a depth of about a foot. Beyond the sparse grass no vegetation of any sort existed within sight of In Ouzel, but in some of the more sheltered " oueds " lying to the east of the well, was a tall shrub, with leaves somewhat resembling the Scotch fir. This was the plant on which the camels fed, and is known as " ethel." It shares with other Saharan flora the peculiarity of possessing thorns, or rather, in this case, spikes. It is a curious fact that every herb, plant or tree in the desert seems to have some kind of a thorn growing upon it. It is rather strange how the camel eats these thorny morsels.

After a thorough overhauling of the equipment; especially the saddles, a start was made for the wells of Timissao, ninety miles further on, on the southern border of the Tanezrouft. The ground was bad for the camels, being rocky and strewn with loose boulders. The camel is not a sure-footed animal, and if he stumbles recovers himself with difficulty. The water at Timissao was excellent, and at this well the final preparations were made for crossing the Tanezrouft. Watering the

camels was a laborious process, as these animals are greedy drinkers, and require a full day to enable them to drink all they require. He will consume three or four gallons at a time, then withdraw, and in a couple of hours or so he will return for a further ration, and so on until he has absorbed eight or ten gallons. To facilitate matters a trough was hollowed in the sand, lined with stones, and filled with water drawn from the wells, so that several camels could be watered at one time.

On quitting the wells of Timissao the caravan at once entered on the Tanezrouft, a bleak, arid waste, consisting apparently of a vast plain of hard sand, with a faint line of hills in the far east. Marching till evening a halt was made for a meal, but when the moon rose the journey was resumed, but clouds obscured the sky and it became very dark. It was marvellous how the guide undeviatingly and without hesitation held on his way. At daylight there was a halt for ten minutes to enable the devout Mahomedans to say their prayers; then on till 11 a.m. in a blistering heat, when they rested till 2 p.m. And so on with unvarying monotony, day after day, the only variety being in the violence of the sandstorms.

These sandstorms were really the most horrible feature of that dreaded waterless desert. The storm would begin with little warning. All of a sudden in the distance there would appear a dense, greyish yellow cloud, whirling rapidly from the distant horizon. This was preceded by an intensely hot wind, resembling somewhat the hot-air blast from a furnace when the doors are opened. This hot wind carried with it countless scattered particles of sand, the scouts, as it were, of the storm which was following. This preliminary wind, with its accompanying sand, was a mere bagatelle. The real trial was to follow. Close on its heels came the sandstorm—a

whirling, densely packed bank of sand, hurrying forward at a headlong pace, blinding and overpowering everything with which it came in contact.

Before one of these terrible storms it is impossible to stand up without the danger of being overcome. The only plan is to fall on the ground and cover up one's face, lying there until the storm is past. The camels instinctively do the same. They know, even quicker than a man, when a sandstorm is coming, and prostrate themselves before it arrives. These sandstorms are awful things, to which even the most experienced and philosophical of Arabs never get used. Instead of cooling the air, they seem to make it hotter. The heat when a sandstorm is about is remarkably oppressive. Just before and after a storm of this description the sun is seen through a haze, reminding the spectator of the appearance it has in London on a foggy day. Of course, while the storm is raging no sun can be seen. Indeed, the air is so thick with sand that it is impossible to see more than a few yards. Moreover, the person who raises his head when a really bad storm is raging is foolhardy in the extreme.

Captain Haywood, during these trying days, found it difficult to sleep, the only time he managed to do so was during the short rest in the evening after dinner. Even when sleeping in the Sahara it behoves the traveller to have one eye open, for there is always the fear of possible attack from desert robbers. The plan adopted was to form a miniature zariba of the luggage, and not to go to sleep without having two loaded rifles within reach.

On the fourth day the monotonous flat sand gave place to barren, rugged peaks of isolated hills, split and cracked into hundreds of clefts by the action of the powerful sun. The gaunt, gloomy rocks were suggestive of a terrible loneliness, where no living thing existed, a

land of desolation and the home of eternal death, with the ghastly remains of some lost caravan scattered about. After passing this desolate spot the desert resumed its former appearance, but now the camels began to show signs of weariness, and to relieve them much of the luggage had to be thrown away. Water began to lighten itself with alarming rapidity, and was becoming so nauseous from being kept so long in the leather skins that the only way it could be drunk was in the form of tea.

At length, to everyone's joy, they reached the wells of Ahnet. Here there was fair pasturage for the camels, so it was decided to halt for a day and a half, for men and beasts were in need of a rest. The worst was now over, for the strain of the last few days had been almost intolerable. The chief source of anxiety was always the water. The skins, or "guerbas," in which it is carried are extremely susceptible to injury. Thorns which are so common in the Sahara penetrate the soft goatskin with ease, causing a puncture which very soon empties the bag of its precious liquid. These bags each carry about six gallons when full.

The country into which they now emerged was Western Hoggar, a mountainous country situated almost in the middle of the Central Sahara, inhabited by a tribe of the Tuareg race. The Hoggars had a most unenviable reputation as the greatest robbers in the Sahara, but the French desert columns to a great extent curbed this propensity, but not altogether. For, one afternoon, Haywood noticed three wild figures riding rapidly towards them on camels. He instinctively felt for his rifle, and both his men were armed with rifles, though of a somewhat antiquated pattern. The arrivals were fully armed with rifles, swords and spears, though they reminded one forcibly of stage brigands, so fantastic was their appearance. The leader, a

stalwart man, with his face more than usually enveloped in his " litham," wore a bright red cloth thrown over his shoulders, while his legs were encased in a pair of gaily decorated leather boots, which reached almost to the thigh, and covered entirely the lower part of his baggy white trousers. The two followers were similarly attired, but less elaborately, and appeared considerably inferior in rank. All three were mounted on the shaggy-haired camels which are bred in the mountainous country of Hoggar. These beasts looked built for speed, and appeared to be in first-rate condition.

The three rode swiftly up to the guide's camel and laid hands on the trappings, but Haywood who was in the rear urged his camel forwards and covered one of the Tuaregs with his rifle. The men released their hold on the guide's camel, and they realised that they had made a foolish mistake. Haywood ordered them to clear off or he would take them prisoners; at the same time he told his men to relieve them of their ammunition, but left them their rifles, for rifles could be easily replaced but ammunition could not.

The next well to be reached was called Imbelram, but the water was so salt as to be almost undrinkable; however, the " guerbas " had to be filled as there was ahead of them a waterless region, about eighty miles wide, but some good water from the previous well still remained, and this Haywood determined should last as long as possible, as the water from Imbelram made them all ill.

The wardrobe of the party was now in a most deplorable condition. Musa's nether garments had given way altogether, so he slipped his legs through the sleeves of his coat and threw his blanket carelessly round his body, presenting an extremely ludicrous appearance; nor were Haywood's clothes in a very much better condition.

The distance to the next well, El Gouirat, was covered in fifty-four hours. This they reached, after hard marching, in a state of exhaustion, but, as the guide said it was " quite near " to Insalah, Haywood decided to push on, leaving the baggage to follow more leisurely. The guide's joy at being so near his destination no doubt made him exaggerate, for the distance to the oasis was about twenty miles, and it was eight o'clock that night before they arrived, both men and beasts being quite done up.

Haywood's entry at the officer's mess was a strange one. The Arab servant who answered his summons at the door regarded him with evident suspicion; probably the only Europeans he ever saw were the officers with whom he was well acquainted, and the sight of a strange white face seemed to cause him great uneasiness. He positively refused him admission, so he brushed past him and mounted some steps towards the flat roof on which he could see several men sitting. When he announced himself their surprise was hardly less than that of the servant. They afterwards told Haywood that they had heard news of his projected journey nine months ago, and as he had not arrived, they thought he had probably abandoned his plan or come to grief in the Sahara. No wonder, therefore, that his appearance now caused them some surprise. When he arrived that night the heartiness of their welcome could not have been exceeded. It made him really appreciate kindness when it was extended to him, as it was by those French officers, with such thorough genuineness. It is needless to say how he enjoyed his supper that night at Insalah. After eating food cooked in sand for so long it was indeed a treat to have a well-served-up dish.

From Gao to Insalah Haywood calculated he had marched across nine hundred and thirty-six miles of desert, and the time taken was fifty days.

Insalah is a fortified post with thick walls of red clay which is found beneath the sand in the neighbourhood. It is the chief oasis in the region called Tidikelt. The oasis stretches for a distance of about three and one-third miles to the west, while the grove of palm trees is on the average one and one-third miles wide. The place has a total population of about five hundred souls. Water is found at various depths, and is very plentiful. Grain is grown to a certain extent by means of irrigation, but the most important is the date crop.

As time was getting short Haywood resumed his journey northward with fresh camels and provisions. Wells were not infrequent; and at one place, El Guettera, water was actually trickling in a thin stream from the rock, a most unusual sight in the desert. The range of El Guettera forms the south-western border of the plateau of Tademayt, about one thousand six hundred feet above sea-level. The plateau was reached by a precipitous track, on each side of which was a deep chasm, in which could be seen the bones of camels, which had evidently at different times, lost their footing and perished. Pasturage on the plateau was good, and the camels fairly revelled in it.

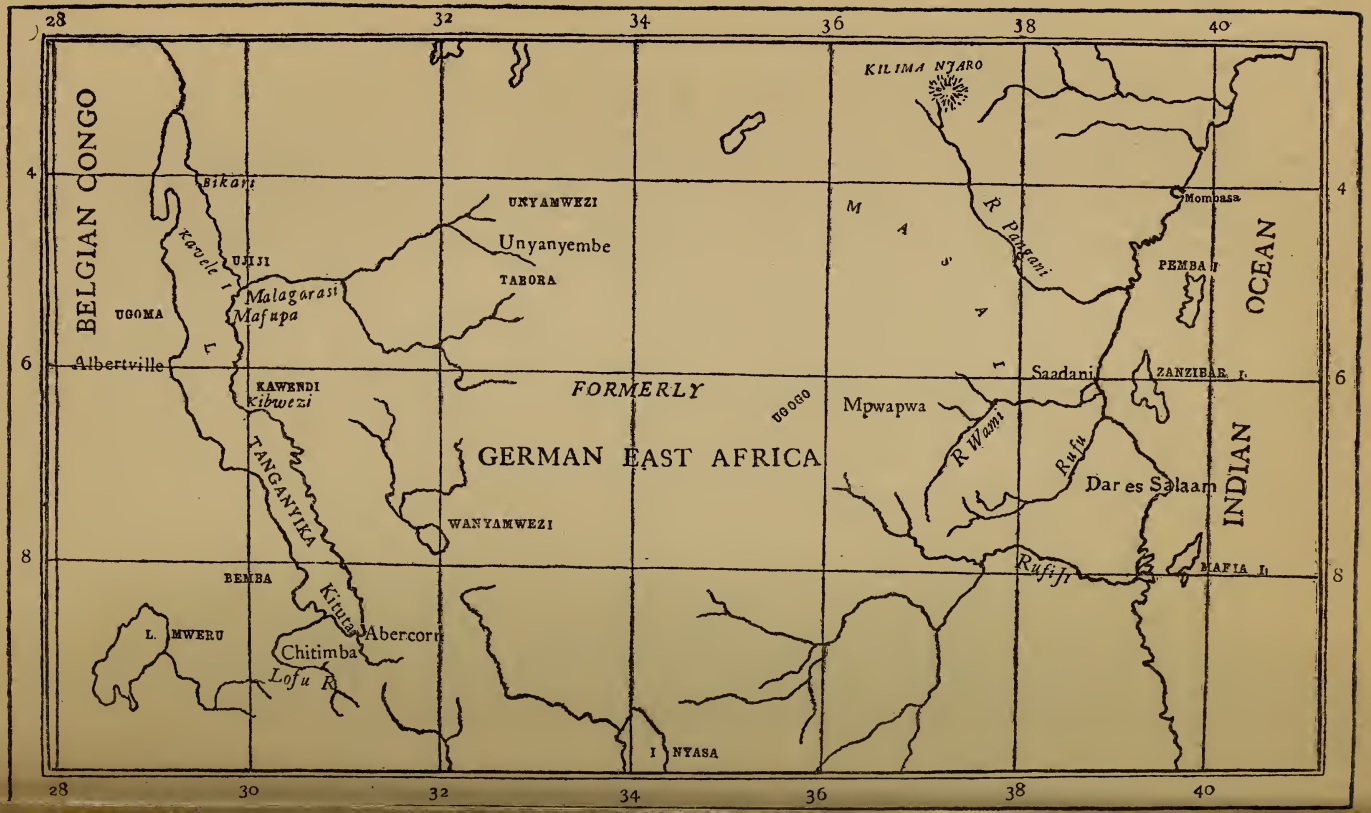
After leaving the plateau they descended on to a wide plain of gravelly soil, flanked by two great sandy deserts known as the Eastern and Western "Great Erg" respectively. The word "erg" in Arabic means sand-hill, and these two vast deserts consist of wide expanses of dunes of soft sand stretching almost uninterruptedly from Morocco on the west to Tripoli on the east, a dreary and difficult march for man and beast. In this region the guide completely lost his way, and had it not been for the "méhariste," or camel-driver, the caravan might have been in serious difficulties. But Hassy Inifel, a small French military post, was safely reached. Three days' march brought them to

the next well, Zmeila, but the " méhariste " had again to come to the rescue, for the stupid guide fell asleep on his camel, and when brought to realise his responsibilities by a sharp application of Haywood's riding whip, declared that they were lost. After this the journey was accomplished to Ouargla.

Between Ouargla and Touggourt there were wells almost every day, and except for the heat there was nothing very trying in the marches compared with what had gone before. Touggourt is within touch of civilisation, for tourists, or a few of the most enterprising among them, come here by the coach in the Biskra season and put up at the curious little hotel of which the place boasts.

Here the journey practically finished, at any rate so far as the desert was concerned.

[The information in this chapter has been derived from Captain Haywood's book, *Through Timbuctu and Across the Great Sahara*, by kind permission of the author.]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Saadani
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R. Wami
Ruvu
Dar es Salaam
Rufiji
MAFIA I.
INDIAN
OCEAN

CHAPTER IX

THE HAUNTS OF SLAVERY

It was in 1882 that Mr. Swann first planted his foot in Zanzibar, then the greatest slave market in the world. Thousands of poor wretches were captured in the interior of the continent and marched down to the coast to be shipped to the island and there sold as slaves almost under the shadow of the British Consulate, so daring and so wily were the methods of the Arabs at this profitable game. The reasons for his being there were these. The London Missionary Society had received a large donation from a supporter for the express purpose of commencing mission work around the great Lake Tanganyika. As the undertaking was certain to be an expensive one it was decided to utilise the more economical transport by water in order to get into contact with the tribes living along a coast line of nine hundred to one thousand miles.

The expedition was organised to enable the Society to occupy these regions. Captain Hore, who commanded the expedition, and Swann, second in command, were instructed to transport a small life-boat and to build the s.s. *Good News* as soon as the material could be sent to them; to survey the lake, and to organise and maintain a regular mail service between the Mission Stations and Zanzibar.

Knowledge of the interior at that time was very vague, and it was only such men as Livingstone, Stanley, and others who opened the eyes of the world to the potentialities of the land, its enormous population,

and its vast natural resources and treasure. The great partition of Africa by the European Powers had not yet taken place, and not one of the now great Protectorates of East Africa, Uganda and Nyasaland, had become a part of the British Empire. The whole of the East Coast and the interior was either in the hands of native chiefs, Arabs, or Marina half-castes who had all one object, and whose ambition was to sell and transport to the coast as many of the inhabitants as they could possibly capture. It is true that commanders of British gunboats and British officials at Zanzibar did their utmost with the limited powers at their command to bring pressure to bear upon the Sultan of Zanzibar, and to check the slave trade at the coast, but none knew better than themselves how inadequate were their combined efforts. At best they only touched the fringe of the disease, which had its ramifications all over Equatorial Africa, and its great centres far away up-country at Tabora, Ujiji, Uganda, Kolakota, and the Upper Congo. Swann's youthful imagination had been fired by the stories of barbarous and hideous cruelty exercised by the slave raiders, and when the chance was offered to him he literally jumped at it.

The bombardment of Alexandria was about to take place, but they passed through the Suez Canal before traffic was stopped, and in due course reached Zanzibar, where gloomy predictions were foretold of a disastrous end to their long tramp of eight hundred and twenty miles into the unknown, through dense grass, over mountains, through rivers and swamps, towards their far-distant goal. The problem of carriage was the all-important one to occupy their attention. Roads, of course, did not exist; narrow native paths overhung with grass ten or twelve feet high effectually prevented the employment of wheeled vehicles. Everything must be made up into portable packages and carried on the

heads of native porters. The most difficult matter to solve was the question of "cash." Coinage, of course, to the natives of the interior had no value; cash of the expedition consisted of calico, beads, brass wire, salt, and such-like articles wherewith to pay wages, make presents, and use in bartering with natives. The wages of the porters was to be two yards of unbleached calico per week. They had to engage nine hundred porters, the journey would take about nine months, and a supply of provisions for one year had to be taken, so it will be readily seen to what formidable proportions the commissariat extended. Much anxious care was devoted to making up the bundles each porter was to carry, and which should not exceed sixty pounds in weight; articles were discarded as unnecessary, then on second consideration replaced and others rejected. In addition to all this the transport of the *Morning Star* was a serious consideration. This being built of steel, was divided into sections and laid bottom upward on specially constructed hand-carts, light and yet strong, made narrow in order to minimise the cutting down of trees. Sets of harness were rigged up, made of rope, to fit three men to drag the carts, one man being in the shafts. To the great amusement of the crowd one of the men in the shafts solemnly exclaimed, "Yes, there is no mistake about it, I am a donkey at last!"

The eventful day at length arrived when the party crossed the twenty-five mile strip of sea which separated Zanzibar from the mainland, and pitched their tents near the shore. The sun disappeared behind some lofty coco-nut palm trees, and insect life swarmed out to enjoy the cool air. Then commenced those choruses of sounds from pool, bush and tall rank grasses, which never cease to serenade African travellers. Mosquitoes in great numbers were buzzing around ears of all, stinging the ankles (a favourite spot), neck, face and

hands. At first they tried to pass the whole thing off as a joke, or at most a temporary annoyance; but first one, then another European had business in his tent, until all were found safely in bed under their mosquito-curtains.

The first morning in Africa was ushered in by a pleasant bugle-call, and the morning mists still hung like a soft mantle a few feet above the long low sea-shore. Babel but faintly describes the howling of that half-civilised crowd, as with strained countenances they scanned the pile of miscellaneous packages, each man mentally appropriating to himself the smallest, softest, and what he judged the lightest load. It must be borne in mind that a mistake at this first selection of loads would certainly mean a tremendous addition to the ordinary physical strain of carrying such a burden for three months; an awkward load, or even one extra pound of weight might not only cause painful sores on either head or shoulders, but so handicap the bearer as to make his pace the slowest in the caravan; and dragging wearily along, far in the rear of his more fortunate companions, he would finally either throw away his load out of sheer inability to carry it into camp, or be murdered for the sake of its intrinsic value by those villains who, being too idle to work, infest certain uninhabited portions of the track, shooting down the lonely and tired porter.

On the word given by the headman the porters hurled themselves upon the packages and then ensued a lively scene of jostling, pushing, gesticulation and recrimination, but finally things quietened down, and each man's name and load were entered on a list. All these preliminaries being settled it was decided to start on the following day. During the afternoon a visit was paid by the headman of the town of Saadani and his followers. Although a slave-trader, he promised them all the assistance in

his power, and kept his promise; but they were not to know that the smiling son who walked beside him would prove to be the treacherous murderer of a white companion, Arthur Brooks. A visit to their village proved it to be a strange mixture of gaudiness and filth.

Next morning the long trek was begun at six a.m., the head porter, known as a "kilangozi," leading the way. He is a man chosen on account of his intimate knowledge of what might be called "the rule of the road." In addition to being physically strong, he must know what paths to avoid, and this is by no means an easy task where the vegetation is dense, and no conspicuous landmarks can be used as a guide to camp. He must never omit to close all paths which he does not wish those who follow to take. This is done by placing on the path either a few leaves or sticks, or, if these are not procurable, he simply draws a line across with his spear.

Swann's first attempt to shoot game on the African continent proved a failure, for attempting to stalk a fine harte-beest he plunged into a mass of thorn bush for cover, and suffered much in the process. The commotion he created in extricating himself alarmed the animal, and it was off like the wind. Swann and his boy circled round for some time in search of other game and at last reached a village, where a white man was evidently a novelty. They gazed at him for a long time seemingly very much interested in his boots. He asked his boy what they said. "That you have hoofs like a zebra." He assured them his feet were like their own, but they shook their heads, so he pulled off his boots, only to be surprised by a burst of merriment. "Now they declare you have no toes," said the boy. So Swann pulled off his socks, and they yelled "He's white all over!" "Yes, I am," he exclaimed, "and you must take it on trust, for no more clothes will be removed

for your pleasure." He then pulled out his pipe and struck a match which had the effect of clearing the audience in all directions. "Now we know," they exclaimed, "that you are a spirit, for you can carry fire in your clothes without being burned."

When the band reached Mamboia, Swann was bowled over by a bad attack of fever, which well-nigh finished his career, but he recovered, and, together with Captain Hore, retraced their journey of one hundred and thirty-six miles to the coast to bring back certain parts of the boat which had not arrived when they started, and reached Zanzibar in eight days. They soon had the carts ready and again started up-country. It is all very well marching along a narrow path, but to draw wheeled vehicles is another matter. Every rock and tree-stump was a vexatious hindrance, and it required a company of axe-men to clear away obstacles. The men pulled, perspired, and said things. A broken trace, a capsize, up to the axle in mud, wheel off, etc. etc., would be a fair summary of the daily life and the pin-pricks they had to endure for three months. Two boat sections weighed three hundred pounds each, and four others two hundred and thirty pounds each, besides the carts on which they were lashed; the path seldom exceeded two feet in width, with trees and tall grasses growing up to the edge. Picture this condition for eight hundred and twenty-five miles, and one must agree that they were a brave set of black men.

As they were travelling through the Mukondokwa Valley Swann gained an insight into the native character. The high grass was nearly dry, and one evening shortly after dinner he heard the ominous crackling of a grass fire quite close to the tent, and his men making a fearful noise. Calling Tom, his boy, he asked the reason. "Fire! master, fire!" he cried. Swann saw ruin staring him in the face as he pictured

the boat, tent, calico, rifles, ammunition, and outfit, adding to the general conflagration. In the space of a few seconds the tent was down, and everything removed to a safe place. None too soon, as, directly afterwards, the fire passed over the very spot. He rewarded the men who were most energetic in subduing the flames, but had not long retired to rest before a second alarm was raised, and again the same process was repeated, and small presents distributed. But by this time he had become suspicious of trickery, so, pitching the tent on a burnt patch of ground, he awaited events.

As he expected the grass was fired in another direc tion, and, on being called, he replied "Let it burn!" for he knew it was only a plot to extort presents. They had purposely set it alight; but, as he was alone, he deemed it prudent to wait for daylight. The next morning confirmed his suspicions. Tom, the boy, in an undertone said to him, "Master no yet speak our language—not know black men. Porters not much bad and not very good. They play with you as you are new to country. Master, never put tent up in grass; plenty fire." "All right, Tom," Swann replied. "Master plenty wake up *after* breakfast." *After* breakfast the head-man of the party was publicly reminded that a white man takes a serious objection to unnecessary excitement in camp after the labours of the day are supposed to be over. There were no more fires!

They arrived at M'pwapwa and joined the rest of their company who had been kicking their heels at their tedious sojourn at this uninteresting place. It formed a convenient halting-place for slave caravans from the interior to the coast. One of these caravans passed through while they were there, and a conversation with one of the head-men enlightened Swann as to the diabolical treatment of the wretched slaves, most of whom were lacerated by the "chikole," a lash of hide. The

head-men were a villainous looking lot, but were very polite and answered Swann's questions readily.

He remarked to one of them that some of the slaves were quite unfit to carry loads. He smiled and answered, "They have no choice! *They must go or die!*"

"Are all these slaves destined for Zanzibar?"

"Most of them; the remainder will stay at the coast."

"Have you lost many on the road?"

"Yes; numbers have died of hunger."

"Any run away?"

"No, they are too well guarded. Only those who become possessed with the devil try to escape; there is nowhere they could run to if they should go."

"What do you do when they become too ill to travel?"

"Spear them at once," was the fiendish reply. "For if we did not others would pretend they were ill in order to avoid carrying their loads. No! we never leave them alive on the road. They all know our custom."

"I see women carrying not only a child on their backs, but, in addition, a tusk of ivory or other burden on their heads. What do you do in their case when they become too weak to carry child and ivory? Who carries the ivory?"

"She does! We cannot leave valuable ivory on the road. We spear the child and make her burden lighter. Ivory first, child afterwards!"

Swann could have struck the demon dead at his feet.

He was helpless, but it is pleasant to reflect that he was then looking on the last slave caravan permitted to leave the mainland, for a strong letter of protest to England caused pressure to be brought to bear on the Sultan of Zanzibar.

The party broke camp and had a heart-breaking journey through the plains of Ugogo, for thorny bushes and rugged country rendered the march not one to be

THE MEDICINE MAN AT WORK

The patient has been laid on his mat in the sun, and the medicine is in the waterbuck's horn resting on his hip, which is probably the injured part. The operator is decorated with white pigment to make him look the more mysterious, and his gymnastic exercises are supposed to chase away the disease. Both doctor and patient believe in the farce. The rolled-up mat on the house signifies the owner is dead.

forgotten. This locality was inhabited by a powerful and truculent race of ruffians, the Wagogo, who made most impudent and extortionate demands as payment for the water asked for. They reached the much-dreaded Mgunda-Mkali wilderness, a plateau of about eight hundred feet high, a most difficult climb rendered doubly distressing by the absence of water. In this neighbourhood they discovered the skeletons of their four mail-men who had been murdered by robbers, with the fragments of letters strewn in all directions, but as there were seven skulls it proved that they had not succumbed without making a stiff fight.

It had long been Swann's ambition to shoot a bull buffalo, and when marching through the country of the Unyamwezi he came across the spoor of one on the edge of a swamp. He was armed with only a cavalry carbine, and disregarding all cautions as to the dangerous nature of a wounded buffalo, began to follow the spoor through a tangled mass of vegetation. He emerged, followed by Tom, his boy, and saw seven buffaloes quietly grazing. The two men threw themselves flat on the ground, but a water-buck taking fright disturbed the herd, who began prancing about whirling their tails round in a vicious fashion. A large bull stood broadside on, and seeing that no time was to be lost Swann rested the carbine against a tree and fired at his left shoulder. He fell, and his companions disappeared in a cloud of dust. He recovered himself and glared round for his assailant. Thinking the animal was mortally wounded Swann had foolishly exposed himself and the bull spied him at once, and charged down on him with his head held high and his nostrils distended. Having reloaded immediately Swann was ready ; but a charging wounded buffalo is not easily stopped. Dropping on one knee and aiming for his chest he pulled the trigger, praying the bullet would strike his heart. Whether it

did or not made not the slightest difference to his terrific speed.

Down went his head for the charge. There was only one thing to do to escape certain death, and so, waiting until he was quite close Swann flung his sun-helmet in his face and threw himself sideways into the bush simultaneously. The infuriated beast thundered over the spot he had knelt on, missing him by inches as he lay flat on the ground, and only his great impetus prevented him from swerving quickly enough to catch him with his horns. The animal crashed into some young trees and stood still while blood flowed from his nostrils, chest and shoulder; truly the beast looked terrible in his rage. Swann gave him no time to recover, and another bullet through the shoulder finished the battle, the mighty beast rolling over dead. It was a narrow escape. In the light of after experience he learnt the folly of attacking a buffalo with nothing but a carbine.

On their arrival at Urambo they were visited by Mirambo the powerful chief of the Unyamwezi. He was dreaded by most tribes in those parts and spoken unfavourably of by Europeans, who imagined him to be a cruel chief delighting in war and plunder. But they found him upright, manly, great, and years of close contact with him proved him to be loyal to all who merited his friendship. Near Urambo is a small community of Zulus, called Angonè, who remained there when the tribe retreated south. They were hired by Mirambo for warlike purposes, as they were greatly feared by the neighbouring people. The party had now completed a march of six hundred miles from the coast and two hundred more would bring them to Tanganyika.

They had now arrived near to the first slave-depot of Unyanyembe. Arabs, financed by wealthy merchants in Zanzibar, ruled the district and kept up communica-

tion with the other depots at Ujiji, the Victoria Nyanza, and Upper Congo, forwarding large quantities of ivory and annual consignments of slaves to the coast. The Arab system extended to great distances, and, octopus-like, grasped every small unprotected village community, making the whole country a vast battlefield wherein no one was safe outside the stockades. As they passed westward on their journey they noticed that in this country none of the villages was stockaded, showing the feeling of security that prevailed, and that food was readily obtainable. But as they travelled away from the capital and the villages became more exposed to attack from the frontier, every town was surrounded by a stockade, consisting of poles about ten feet high, closely bound together, and inserted into the earth. Along the top of them thorns are often added. Where lions infest the neighbourhood this plan is always adopted, although they have been known to leap over and tear off the grass of huts at night, killing the occupants. Game was abundant everywhere, but the numerous pits dug for the capture of wild animals made it risky to hunt except with great care.

It has often been said that lions, if they spring at and miss their prey, will turn away disgusted. While here, Swann had an opportunity of proving it. A man who had been out chopping firewood, armed with merely a small axe, rushed into the camp crying out that a lion had sprung at him. As he showed no signs of damage, and was practically unarmed, his story was received with jeers, but he led them to the spot, and showed them an ant-hill, from the top of which the brute had sprung, bearing the deep furrows of the claws of his hind paws, and exactly twenty yards away were the marks where he had landed. The belief in charms and medicine is deeply rooted in the mind of the African, so it could have been nothing but the man's strong medicine which

saved his life. Firm in this belief Tom begged some of the man's charm, and it was his trust in this that brought about his sad end some time later.

The Malagarasi river was reached, a rapid stream flowing into Lake Tanganyiki below Ujiji, the ferry rights of which were claimed by a petty chief who dwelt on the farther side, and so was out of the jurisdiction of Mirambo. He proved to be a sharp man of business, and after a good deal of haggling, during which negotiations were perilously near the breaking point, he agreed to take the party across for two yards of calico per head. The stream was swift, the canoes as cranky as racing skiffs, and crocodiles lurked everywhere. However, all the porters were transferred to the opposite side, and then the problem of the transport of the carts remained to be solved. Fearing that the old man on seeing these would repudiate all responsibility and perhaps remove the canoes, Swann seized the whole lot, and by lashing poles across them made a strong platform onto which the vehicles and their precious burdens were secured. The wily natives looked on without comment, but when all was ready for a start they demanded double payment, refusing to be responsible for loss if the canoes capsized. They were paid at once, and without mishap a most formidable obstacle was negotiated.

The Wavinza presented a marked contrast to Mirambo's people, for their villages were untidy, scattered, and many were wrecked by slave-raiders. The result was that the men took to highway robbery in order to support their families, and Swann was compelled to station guards at intervals along the road to protect his own people.

They crossed the Lusigi river with very little difficulty, and messengers were despatched to Ujiji to herald their arrival. Tanganyika was at hand! The view came in sight at last—just a narrow strip of the great lake

gleaming in the sun in the distance between the trees, and enlivening each member of the party with the assurance that to-morrow they would be in Ujiji. For hours they crept through muddy paths, the haunts of hippopotami, until they emerged upon the pleasant-looking Ruiche river, the last they had to cross. Next day they slowly marched into Ujiji, a compact body, the firing of guns and beating of drums awakening the inhabitants to come and look. The journey of eight hundred and twenty-five miles was ended, and the subsequent arrival of two hundred more loads completed the success of the largest East African expedition. Stanley, years before, took seven months to get to Ujiji, whereas they had taken only three, showing clearly that facilities for transport were increasing rapidly.

The human donkeys, harnessed to their carts, went mad with excitement. Not one had deserted over that long and difficult journey, and, unable to restrain themselves, they rushed down on to the sands with their carts, flung themselves *en masse* into the Tanganyika, shouting to the waves, "We have brought you a child from the white man's land, to ride on your back, to breathe your winds, to sleep on your breast—God is Great!"

The mighty Tanganyika lay at Swann's feet, extending for hundreds of miles. The dark mountain range of Goma, on the opposite side, was visible about forty-five miles distant. Beyond this could be pictured the Congo with its mysteries, cannibalism and wealth. Swann tried to enter into Livingstone's thoughts as he stood here, wondering whether this mass of water was the source of the Nile. He knew that at this spot Africa's greatest missionary explorer was found by the intrepid Stanley. It was an historic spot. Here centred all the villainy which for centuries had cruelly oppressed the coloured races, and here the Arabs were, as they thought,

established in their impregnable fortress. An Arab who had been standing by, watching him, broke into his reverie, and after some conversation Swann said :

" Did you meet Livingstone ? Were you here when he came ? "

" If you mean a white man, I do not know him by that name," he replied.

Swann was disappointed, but said, " Don't you remember a man with a peaked cap, who carried medicines about, who was always looking for, and asking questions about rivers and lakes, who never purchased slaves or ivory ? Have you never heard he was met here by another white man named Stanley ? "

A smile played about his face as he extended his hand, exclaiming, " You must mean Baba Daud and Bula Matali ! "

" Those are the men," Swann replied. " ' Father David ' and ' The Stone Breaker ' ! "

Ujiji was really ruled by the Arabs, though nominally by a native chief; most of the powerful and wealthy Arabs lived here, superintending the transport of ivory and slaves which came from the west. Both the famous Tip-pu-Tib, and his partner Rumaliza, had their principal houses in the town. The former associated himself with, and assisted, all the early travellers; the latter eventually fought against the Belgians for the Upper Congo.

The country to the east of Ujiji had long been denuded of ivory, and that which entered Zanzibar came from the regions west of Tanganyika, where elephants abounded and ivory could be obtained for a trifle. The town was a curious mixture of luxury and squalor; ivory representing many thousands of pounds was scattered about. Diseased slaves jostled gaudily dressed women of the same household. Slaves were in evidence everywhere, whilst brutal half-caste fighting-men

lounged in the verandahs of the great. It was a whited sepulchre. Small-pox was rife, and those who were beyond hope were taken to the shores of the lake to be devoured by the crocodiles.

The party lived amongst the Wajiji, a bright and industrious people who held large markets every day for food in exchange for calico, salt, beads and brass wire.

CHAPTER X

THE HAUNTS OF SLAVERY

It did not take the quick-witted Arabs long to perceive that the advent of the Europeans meant the downfall of their own supremacy, though their courtesy never abated. But Swann distrusted their smooth manner and glib tongues more than he feared their drawn daggers. They showed their dislike in pin-pricks by placing all sorts of obstacles in the way of the new arrivals which, trivial though they might seem, were extremely irritating. It was necessary for the comfort of the workers on the new boat that a grass hut should be erected to protect them from the sun. But to this the Arabs objected, for it would mean taking possession of the country, so Swann requested them to provide umbrellas and men to hold them all day long, and then the absurdity of their contention dawned on them, and they gave in, but only on the condition that the hut should be destroyed directly the boat was launched. The building of a metal boat excited general amazement; it could not float; if a small iron rivet quickly sank to the bottom of the river, was it likely that a mass of iron plates could float on the surface.

The boat was completed, and preparations made for launching it; but the inevitable pin-prick followed, for the Arabs refused to allow the boat to be moved. "You have been entrusted to us," said they, "and we are responsible to the Sultan of Zanzibar for your safety. If you leave us and come to harm, what shall we say to him." "If you hinder us," said Swann, "we shall send a complaint to the Sultan, which will take five

months, and will demand compensation for delay, and that will be exacted from you." The Arabs were touched on their vulnerable point, and gave way. The vessel was launched the very next day, and the hut pulled down. The fatted calf was killed, and eaten perhaps by the most picturesque guests imaginable. They left Ujiji as soon as possible and established a depot at Kavala Island, then sailed to the south to receive the material for building the first steam yacht to navigate the great lakes. During the first and second years numerous voyages were made in the small boat for the purposes of survey work and establishing friendly relations with the native chiefs.

To be in that open boat beating two hundred and fifty miles against the south-east monsoon was an experience in yachting not to be surpassed anywhere. From east to west coast, by night and day she thrashed against the white-crested waves, drenching all on board. Her native crew would hide behind grass mats, under the thwarts, when the heavy clouds burst and a tornado of rain and wind descended, threatening to capsize the boat. The inky darkness was pierced by sheets of fire accompanied by thunder.

To be on a level with, and often beneath, the crests of the waves was a different thing from walking on the bridge of an ocean liner. Waterspouts were common, rushing about from one side of the lake to the other like demons; in fact the natives call them "devils' tails." Fortunately they always missed the boat, but the accompanying whirlwind drove it about as if it had been a cork on the waters.

A permanent camp was formed among the Walungu, some distance up the Lopi River, at the south end of the lake. These people, who were once a numerous tribe, had been so harried and scattered by the slave raiders that they had finally taken refuge in huts built

on the sud which had collected in the middle of the river. Ugly crocodiles, huge hippopotami and an infinite variety of birds had their habitation here.

Here the parts of the s.s. *Good News* arrived, and Swann and his party at once set to work to rivet the plates together. Recreation, however, was necessary to ward off threatened attacks of fever, and this was provided by the wild-fowl shooting so plentiful everywhere. It was on one of these shooting expeditions that Swann lost his faithful little servant, Tom. Taking Tom and another boy with him they paddled up the river and hauled the canoe on to the bank at a certain spot. The water looked tempting and the boys wandered off chatting together and splashing through the shallow water. Swann warned them to be careful of crocodiles, but Tom laughed, and pointing to a small packet suspended round his neck, said, "Master, I am not afraid. See this packet? It contains some of the medicine I bought on the road from that man who was nearly caught by the lion." "Don't be silly, boy," cried Swann. "Crocodiles are not scared by such things, and, besides, that particular charm is against lions, not crocodiles." "It's all the same," he laughingly answered; "no beast can hurt me as long as I wear it. Muungu bass! Only God!" At that moment a large piece of banana stalk floating down the stream caught Tom's eye, and boy-like he determined to have it. He plunged in and made for his prize. Swann shouted, "Come back, you young fool!" but at that moment Tom disappeared, evidently struggling with something under the water, and instantly a crocodile's tail swished out of the water as it forced itself downward with the faithful little servant and companion, to Swann's great sorrow.

Complaints from neighbouring tribes of the depredations of the Arabs induced Swann to send a request to

the Arabs that the lives and property of the unoffending people should be respected. To this they returned a most insulting reply, so Swann invited them to come and talk the matter over. To his surprise they immediately accepted, and a deputation of twenty-three Rugaruga, as truculent and villainous a looking band as could be raked together from anywhere, arrived. They were arrayed in black monkey skins and carried spears and muzzle-loading guns. Their tone at first was very offensive, but Swann's determined attitude, backed by the ostentatious display of three six-chambered revolvers, brought them to their senses, and after some stern words of warning they departed in a somewhat chastened mood. They were a truculent set of bullies and blackguards, as well as arrant cowards. Although they left the little band alone they wreaked their spite on all the villages of the beautiful Lofu river until only two or three were left standing.

As has been said, the neighbourhood of the camp abounded in game, great and small, and of this Swann, who was a keen sportsman, took every advantage. On one occasion, having shot some Egyptian geese from a canoe, he and his boy Kabatawe, successor to poor Tom, paddled up a narrow creek to pick up the birds which lay on a mud-flat. No sooner had they entered the creek and run on to the mud than a hippo rose behind them, right in the entrance to the creek, grunting in an unpleasant manner, and evidently annoyed at their presence. Kabatawe leaped overboard in an instant, bang into the soft mud, and there he remained up to his waist, a picture of utter helplessness. The hippo plunged about only a few yards distant, looking as if he meant making trouble. "Shoot, master, shoot! Pull me out! Mother! I shall die!" and similar remarks came from the lad in rapid succession. Extracting the cartridges from the gun,

Swann held it out to him, and pulled him into the canoe.

The mud was too soft to attempt trying to land, and the brute remained bobbing up and down, right in the only track by which it was possible to escape, and to fire duck-shot at him was to court disaster. Swann told his boy to take his paddle and, the next time the hippo disappeared under water to push the canoe gently off the mud. The brute must have heard the movements, for he at once became excited, turning half-somersaults in the water, a well-known practice of theirs when irritated, equivalent to the action of a bull pawing the ground. As the evening was coming on and he feared an attack Swann saw that the only thing possible was to make a dash for it, so he said, "Now boy, give me that other paddle, and the next time he disappears, paddle for all you are worth." As the water closed over the beast's ugly head they dashed out; a few desperate strokes sent the canoe across the stream, passing over the spot where he had last been seen, and as they rushed into the opposite reeds and sprang on shore he rose and plunged forward, catching the stern of the canoe in his jaws, smashing the side and filling it with water. It was a narrow escape!

At length the last rivet was hammered in, and the *Good News* was launched. The old sceptic who on a former occasion had doubted the ability of an iron boat to float was present. Swann said to him, "What about the lump of iron swimming now?" "You put medicine into it," he answered. "Never mind about the medicine," said Swann, "I told you it would swim. Does it?" "Yes, it does," he answered; "and I'll believe *anything* you tell me after this." This was, indeed, a swing of the pendulum in the opposite direction, with a vengeance.

There are some who deny that the negro has any

depth of feeling; that all his feelings are displayed on the surface. This Swann denies, and gives an account of a duel between two lovers of which he was elected umpire, and the suicide of the loved one. Two young men loved the same girl, and both deposited the usual presents with her relatives. This was against the custom, and trouble followed, for one of the lovers, losing patience, carried the girl off to his own village. By rights, the two villages should have taken up arms, but in this case it was decided the rivals should fight a duel, and that the victor should secure the girl, but that the duel should not be to the death—that it should be fought with spears, and that the first wound to draw blood should secure the victory. If, however, the wounded man died, the girl was to go to his next of kin. Swann was in the harbour at the time, and the chief requested him to leave, as he feared the crew might favour one side or the other, and so cause further trouble. But Swann reassured him on this point, as he was anxious to see so unique a proceeding, but he had no power to stop it. After some private consultation between the chief and his advisers, to Swann's great surprise he was asked to act as referee and judge. To this he consented on condition they agreed to accept his verdict as final, but he refused to have anything to do with the disposal of the girl. To this they assented.

A great and excited crowd had assembled when the two men came forward, both looking sullen; they carried ugly looking spears, with shafts about six feet long. The particulars of the quarrel and the conditions of the fight were shouted out and assented to both by the spectators and the duellists. After ordering all arms to be safely put away by the spectators, the word was given to the rivals to "Go on!" Both were fine specimens of men, and covered with grease.

Swann naturally expected a mad rush, but nothing

of the sort followed. They stood quite still, only leaning forward just sufficiently to allow both blades to come well into contact. Their eyes were fixed on each other; they bent forward towards the ground, the muscles of their arms quivering as each tried to press the spear of the other on one side so as to get a clear thrust. Perspiration ran down their bodies; physically they appeared to be equally matched. This bending to the ground to get in the first blow was a calculated manœuvre, and as an exhibition of fencing with the spear it was worth witnessing.

Weight began to tell in favour of the older man, and suddenly he brought more pressure to bear on the blade. The youngster gave way, there was a swift lunge forward, and the next instant both were sprawling on the sand; the sudden release of the weapons threw them off their balance, and quick as lightning the youngster as he fell passed his spear through the thick part of his opponent's thigh. As they came to the earth the spear snapped, and the defeated man was gripping his spear to stab his fallen conqueror when Mr. Swann seized his wrist, and putting his revolver close to his face called, "Drop it! You have lost!" The exulting youngster was ordered off the ground and the wounded man carried away. The gash was a bad one, but the wound healed in three weeks.

But the real tragedy was to come. About midnight Swann was awakened by heart-broken outbursts of grief from the high rocks, in a woman's voice. Followed by his crew he went in pursuit fearing the poor creature might be attacked by leopards, calling all the time to her to come back. Her only reply was a wail of grief. At last they caught sight of her standing on the top of a high cliff overlooking the lake; in another moment, with a final wail, she was gone, and next morning her mangled body was found at the foot of the cliff. It was

the maiden, the innocent cause of the duel—she had lost her lover, the wounded man.

While in this district the camp was one night invaded by a herd of elephants, and of all the unpleasant night visitors they are most to be dreaded. Lions, leopards, hyænas can all be driven off, but the elephants are serious invaders, commanding respect. Swann was awakened by terrified men rushing into his tent crying out, "Njovo, Bwana, Njovo" (Elephants, master, elephants). The night was very dark, the camp-fires were alight but not blazing. Looking out he saw the huge brutes pitching about the tents and demolishing the temporary huts of his men, while a little fox-terrier which always accompanied him made straight for an elephant which was busy smashing boxes and sending cooking utensils flying in all directions. Very much annoyed he tried to seize his elusive tormentor with his trunk, but the terrier was too quick for him. Swann was no elephant hunter, and confesses to a sense of helplessness, a feeling that he would be just as unsafe up a tree as on the ground. It was no use wounding one of them, for that might only complicate matters, but hoping to scare them he fired several shots in the air, whereupon they took the hint and decamped, fortunately missing all the frightened men who were hiding in the bush. One such experience in a lifetime was quite sufficient!

Shortly afterwards when passing through the Wankonde country Swann narrowly escaped losing his life at the hands of one of the medicine-men. His desire to find out all that was possible about these professional men nearly caused him to pay a high price. One of these dreaded creatures lived among the rocks and enjoyed a high reputation for his uncanny powers. Swann importuned the chief to bring about an interview with the old impostor, but for a long time without success, each time receiving evasive replies. At length

he gave way, after giving hidden warning of treachery, and washing his hands of all responsibility. The path was pointed out and Swann started, accompanied by several of his followers. They followed a rocky path strewn with bones, and at length came in sight of a hut, with a man sitting outside the door.

He was indeed hideous; around his loins were suspended gourds; hanging to his arms were lions' claws; several porcupine quills protruded from his hair; and hanging from his shoulder was a dried snake-skin. He had evidently been told of the white man's approach, and was not at all disturbed. Handing him some beads Swann wished to know if he should have a safe passage down Nyasa. The man pointed to an inverted pot, making a series of passes with a buffalo's tail. After addressing to this pot a few sentences he leaned forward, making a vigorous pass over the ground, and from under the pot came a sharp whistle. This he interpreted as meaning that the voyage would be safely concluded.

But Swann had noticed his vigorous action when bending forward, and suspected the application of muscular persuasion to the spirit; and so, drawing his hunting-knife, he passed it sharply through the soft earth between him and the pot, when, as he expected, he dragged out a piece of bamboo which was connected with a bladder under the wizard's feet. By bending forward he had pressed the wind out of the bladder along the bamboo to the whistle under the pot, and the spirit spoke.

Murder gleamed in the man's eyes; he danced like a maniac. "Let the white men follow me," he shouted; "I will show him the true spirit of the Wankonde," and marched out of the hut. "Quicker!" he exclaimed, darting round a large rock almost hidden by dense undergrowth.

Swann was about to respond to his invitation, when

AFRICAN MIMICRY

A native having seen a Hussar's busby, tries to go one better by making a much lighter one out of leaves and adding another plume.

IN THE WAKE OF THE SLAVE RAIDERS

A village raided by slave hunters, who have partially destroyed the huts and pitched away the cooking-pots. A solitary individual has crept back from his hiding-place to find his home desolate and all his relatives gone into slavery. Suicide is often the sequel.

he was gripped from behind by one of his men as he shouted, "Look up there, master; don't move!" He followed with his eyes to where the man pointed, and there just above him hung a horrible spear, weighted and suspended by a rope over the path, across which, hidden by grass, was a small string placed so that anyone who touched it released the deadly spear. It was a game trap. One glance was enough. Swann stepped off the path, cut the string, and the instrument of death thundered down, burying its point in the path. The fiend had jumped over the string, knowing that Swann would trip up against it, and that the released spear would close his mouth, and so the secret would be preserved. In all Swann's twenty-six years' wanderings amongst Africans, this was his only experience of a deliberate attempt at assassination.

While steaming down the Shire river which flows from the south end of Lake Nyasa, Swann had a novel experience in steeplechasing. The river was commanded by a chief named Mponda, and the captain informed him that he always had trouble here with the Arabs, when passing the place, sometimes being peremptorily ordered to anchor the ship. They had cut down a large tree and thrown it across the river to impede navigation. The captain said there was just sufficient water to get over it provided all stood in the hinder part, and then, as the vessel struck the tree, ran forward, thus transferring the weight to the opposite end. It seemed a somewhat novel mode of navigation, but it was soon apparent the people on the shore meant to stop them and exact a heavy toll for passing down the river. They stood on the banks in great numbers, pointing their old flint-lock guns as the vessel approached at full speed, only a few yards from the bank on which they were standing. Pointing ahead to a ripple in the water, the captain explained that it was caused by the current

running over the sunken tree against which the people hoped the vessel would strike. They knew this would result in detention at their place, which would cost the party dearly. All on board congregated abaft, and as the ship mounted the tree the captain shouted, "Run as fast as you can!" They did, and the little craft struggled over, with a heavy list into deep water on the other side. The wonder was it did not break the vessel's back. In those days no one stood at trifles. Things *had* to be done. Bullets followed them, but they steamed gaily onward, and were soon out of range.

The further voyage down the river was exciting, for the frightened Makololo crew had bolted, so Swann and the captain had to share the duties of engineer and navigator, and the country being in a state of war they were constantly shot at from the banks, but a few rounds of buck-shot generally dispersed the hostile bands. They had now entered the Zambezi, and while taking in wood, Swann, accompanied by a boy, went in pursuit of game. After some time he missed the boy, and after a search found him writhing on the ground with a dead puff-adder close by him. Brandy there was none, and his knowledge of surgery was limited; but something must be done, and done quickly, so taking out his knife he cut a wedge-shaped piece from the bitten part, then powdering some pith scraped from his helmet, he placed it on the wound and set fire to it, hoping to cauterize it, but without success, for the poor boy died within an hour.

Swann had been warned before he left the coast against a band of roving Masai warriors, and he had good reason to remember the warning. For one afternoon his head-man came back to him with three warriors of the tribe in full war costume, which consisted of a pair of sandals, some chain ornaments suspended from their ears, and a girdle of leather to which was fastened

a knife and tobacco-box. They were otherwise quite nude. In their hands they carried a long, broad-bladed spear, a cowhide shield, and a small knobkerrie. Swann did not know a word of Zulu, but his head-man explained that they required him to accompany them back to their main party. Swann slipped some cartridges into his Winchester repeating rifle, for although he knew the odds were ridiculous, nevertheless it looked like business, and was impressive. He then opened his umbrella with all the coolness he could summon, and followed. One of the warriors touched the umbrella, intimating that he would like to possess it. Swann, through his head-man, refused on the grounds that he had only one, and that as a Masai warrior would refuse to part with his stabbing-spear, neither would he part with his umbrella. The man then touched his coat, a white one, but Swann laughed to scorn the idea of a Masai warrior appearing in white; he would be the butt for jeers and taunts of cowardice from his women folk, and besides, only medicine-men were allowed to paint themselves white. These retorts had the desired effect. They found the anxious party surrounded by an ominous-looking band of four hundred dusky warriors, all squatted behind their shields, with the ugly broad blades glinting above. Swann reproached them for hiding thus behind their shields as if they were ashamed to show the scars inflicted by their enemies. This nettled them, and after some fencing their leader, in rather a high-handed manner, said that he had heard of the white men and wished to see them. "Very well," said Swann, "now that you have satisfied your curiosity, we may be allowed to continue our journey." To clinch the matter he tore up several yards of calico, and soon every spear was decorated with a strip of cloth, after the fashion of the lances of cavalrymen. They had no other use for Manchester goods. This put a new complexion on the

situation, and Swann seizing the opportunity took a twig, and invited the leader to break it with him, similar to our time-honoured custom of breaking a wish-bone as a sign of friendship. A promise given in this manner is held sacred, and is very seldom broken. The leader refused, and Swann taunted him with being only an inferior chief without power to make such contracts. This wounded his dignity as Swann intended it should. Tearing off another piece of cloth he tied it round his spear-head and again offered the twig. This time there was no hesitation ; the twig was broken, and the crisis past. Swann then tried to buy a spear or a shield for calico, but without success. One of the leaders, however, made him a present of his ebony knobkerrie, and this was a great concession, as it is equivalent to parting with one's favourite walking-stick. Swann stuck his piece of twig in the front of his cap, and said, " Good-bye! You see I carry the Masai mark of friendship before my eyes in order that I may not forget my promise to you." With a swinging trot the band then disappeared into the bush, as fine a lot of half-wild men as one could wish to see anywhere.

Shortly after this incident, whilst passing through the Wanyamwezi country he was churlishly refused permission to draw water from a well, and water they must have. Swann believed in adopting native customs to settle native difficulties, as the negroes did not understand the white man's reasoning or method of procedure. If two men quarrel over a piece of land, a pot filled with medicine is deposited on the ground in dispute, and so long as it is on guard neither the land nor its produce may be touched by anyone. Swann adopted this plan to meet his own case. He took a white bottle and a spear, buckled on his revolver, and made his way to the well, which he found guarded by a dozen men with spears. He approached them, and, driving the spear into

the ground placed the inverted bottle on the other end, at the same time reminding them of their custom. This was indeed carrying the war into their own country and upset all their preconceived ideas. Their consternation was great, but protestations and expostulations were vain; no one must pass the medicine and no one must remove it except the one who had placed it there. Time passed on, the sun was declining, and the women were clamouring for water for the evening meal, so a deputation was despatched to the chief who gave his consent reluctantly. But to make them pay for their churlishness Swann determined to carry the farce still farther, and declared that the medicine bottle must be covered with the blood of a goat, and its flesh eaten by him and his followers. The goat was forthcoming. He then said that the taboo could only be removed by his revolver, and stepping within easy range he fired and blew the bottle to pieces. There was a wild stampede for the water by natives and visitors, and so the comedy came to a satisfactory conclusion.

While hunting one day, Swann narrowly escaped a terrible death. He had been following a slight track through the bush, and coming to a clump of bushes pushed through them rather hurriedly, closing his eyes as a protection from the branches. In a second he fell headlong into a game pit. Luckily his rifle was fixed at safety and did not explode. He alighted at the bottom, partly on his head and elbows, with his feet in the air. His position, he confessed, must have been ludicrous as seen from the top of the pit. The sun-helmet was jammed over his eyes, and he lay all of a heap, partially stunned, with nose bleeding freely, and face somewhat damaged. "Spikes" were his first thought, as he knew they were used in most pits. Scarcely daring to feel, he rolled over into a more comfortable position, dragged off his impromptu mask, and caught sight of a horrid

sharp bamboo sticking up within a few inches of the spot where his head had struck the bottom. Three others, with their points slanting inwards so as to impale the falling game, were still looking upwards for a victim. Being too much shaken to move for a few minutes, he could only lie and look at those cruel points which had missed him by a few inches. Beyond a severe shaking of body and nerves he was not much the worse for this sudden let-down. His two black eyes were a source of amusement to his boys when they chatted over the fire. One little chap remarked: "Master went down white and came up partly black; if he gets many more falls like that, we shall be all one colour!"

CHAPTER XI

THE HAUNTS OF SLAVERY

Central Africa at this time was in the melting-pot, and " Spheres of Influence " were being mapped out by most of the Great European Powers. A strip of country to the north of Lake Tanganyika severed what would otherwise have been a continuous line from the Cape to Cairo. As the British Government wished to have a willing and amicable agreement with the owners before including it within their sphere of influence, Consul (now Sir Harry) Johnston requested Swann to make treaties with the chiefs of those parts. But Swann was between the horns of a dilemma. On the one hand there was the desire to obtain possession of a tract of country on which so much time and money had been expended, and the chance of it falling into the hands of a rival Power ; on the other the danger of incurring the censure of his Society which strictly forbade its servants to meddle in politics. After conferring with his colleagues, Swann decided to run the risk of censure, they declining to take any part in the enterprise.

On his journey up the Lake he accepted, not without some slight feeling of trepidation, an invitation to take part in a hippopotamus hunt. The huge animals abounded in the Lake, their fat being brought for sale to all the local markets. The natives hunted the animal with spears in large canoes. It was not comfortable to go amongst a herd of snorting hippo in so frail a craft, but the natives did not seem to see danger. He did ! His canoe contained eight men beside himself. One at each end steered as required ; the remainder were

armed with stabbing spears and paddles. They approached the first herd, but could not get within striking distance. A native informed him that the only chance was to excite their anger, when they would charge. A truly pleasant prospect! Swann, not being a very good swimmer, quietly unlaced his boots and trusted to Providence to help him out of an awkward corner. Three men sprang overboard and quietly swam towards the herd. On their approach a male hippo dived. The others shouted, "Come back!" and in a few seconds the swimmers were on board. As the last one was dragged in, the hippo rose with a snort close to the spot where they had been swimming. Again he dived and rose a few yards from the canoe, opened his ugly mouth, and giving a vicious snort, flung his great head over the side of the canoe. All, except two, jumped to the opposite side to counterbalance the weight; these two dug sharp spears into the softer part of the animal's neck; another hit him over the nose with an axe. This was to make it impossible for him to close the nostril, so that he could not keep under water. His attack had been rather too sudden, for he succeeded in pressing the gunwale under, and pitching the whole party into the water.

What with the shouts of the men, and the splashing of the enraged hippo (which could not dive on account of the cut nostril), sending blood flying all over the water, it was an aquatic pandemonium in which no one need desire to be mixed up. The brute made a plunge at the nearest man, but he simply dived and came up laughing. "Dive, master, if he comes for you. They can't bite under water, and he cannot dive; the water would drown him—his nose is dead."

Such was the advice tendered to Swann, but he sincerely hoped he would not need to put it into practice. The herd answered the grunts of the wounded one,

which made off to join them, going like a motor-boat along the surface, and blowing jets of blood and water as he swam. It was the work of a second for the men to turn over the canoe, and a few vigorous see-saw pulls sent the water flying over the ends; baling completed the work, and all were snug on board again. The spears, having been fastened to strings, were hauled up. Swann asked if this often happened. "Yes," they answered; "but usually we manage to keep the boat from filling with water; to-day we are not quick enough." Swann never gave them a chance to retrieve their character with him as passenger.

Swann succeeded in securing the treaties from the native chiefs, and on his return journey with his followers was spending the night in a native village when he was awakened by a horrible shouting and cries of "Leopards!" These shrieks were mingled with the ferocious snarls of two leopards as they attacked the men lying around their fires. Snatching up a revolver he rushed from his hut and saw on the ground, locked in a close struggle, men and leopards. The brutes were rolled over by the powerful men, sometimes one, then the other, being uppermost. Blood was flowing freely from the men's legs, arms, and backs where the sharp claws had dug deep into their flesh, but up to that moment they had succeeded in keeping the animals from their throats, which the leopard invariably seizes if he can. Both animals were smeared with the blood of their victims, who were rapidly tiring, having been caught when half asleep, with no weapons of defence. It was impossible to fire at so confused a mass of struggling men and beasts without danger of hitting the men, so he discharged several shots in the air to scare away the creatures. It had a partial success, as they both turned to look in the direction of the noise. This gave the men breathing time, but the loss of blood had left

them but little strength to continue the unequal battle, and certainly no chance of victory.

The report of firearms aroused the natives in the neighbourhood, who rushed out of their huts, and as soon as they saw what was taking place, without a moment's hesitation charged down on the leopards, plunging their broad-bladed spears into both animals, almost cutting them to pieces. If the leopards had seized the men's throats nothing could have saved their lives, for with a few rapid strokes of their claws across the neck they will sever the large arteries and drink the blood.

In this case it made little difference to two poor fellows, who died the next day from exhaustion. Such attacks from leopards are not common, as they prefer to catch fowls and dogs and roam nightly through most villages, occasionally killing a goat which may have been tied up unprotected. But generally speaking the leopard is considered more as a nuisance than a dangerous enemy. Swann was afraid the natives might raise all sorts of unpleasant questions about witchcraft, in which light the attack was certain to be considered, the leopard being the favourite animal chosen as a temporary residence by their ancestors and enemies, and certain live persons being believed able to transform themselves at will into his shape for the purposes of revenge. This being the case, Swann considered it wise to continue his journey to Ujiji with the valuable treaties and concessions he had been at so much trouble to obtain for his government.

But a violent gale caught them, wind, rain, and waterspouts threatening to put an end to their journey. He blazed away with his rifle hoping the concussion would break the columns of water, but the report was barely audible. At length a violent gust turned the boat over as though it had been made of paper, and down she

went, carrying with her the precious title deeds, but fortunately quite close to shore. Next morning, after a night of great discomfort and " doleful dumps," the rising sun revealed a lake like glass, and the two masts of the boat standing out from its unrippled surface. A bright fire and a hearty breakfast soon raised the spirits of master and men. The crew dived and dragged on shore everything out of the boat, including the precious treaties, which, thanks to the care with which they were packed, were very little damaged. While Swann nursed a bad attack of ague by the fire, the men set to work to recover the boat. Crowds of natives had assembled and looked on the whole affair as a huge joke. The anchor and chain were soon stretched out towards the shore, and a pole inserted under the keel after the sand had been scraped away. To the chain were attached strong creepers, as thick as a man's wrist. These were passed to the crowd of eager helpers, standing in shallow water, who ranged up in line—a yelling, jolly crowd of darkies. A pull, enough to snap a manila cable, followed, and the vegetable rope parted. The whole crowd fell down splashing into the lake, a confused heap of astonished but grinning humanity, determined to rescue the vessel for the white stranger. After repeated failures they were taught how to apply their strength, and inch by inch the boat was dragged to the shore. A present of a few inches of calico quite satisfied them, and during a race for a small bag of salt, Swann took his unostentatious departure, deeply grateful to them for their kindly help, and thankful to have come out of a critical situation so luckily. The sting, however, like that of the scorpion, lies in the end of this tale, for to Swann's intense disappointment he learnt that the " sphere of influence " which he had risked his life to secure had been handed over to the Germans, and the precious treaties were worthless.

During this time there was considerable friction between the Arabs under the notorious slave-raiders Tip-pu-Tib and Rumaliza, and the Europeans, but whatever their faults may have been these two leaders always treated Swann with courtesy and consideration, and afforded him help whenever they could, but constant petty annoyances were the consequence of this friction, and even the most friendly tribes could not guarantee absolute safety, as they were not powerful enough. The country was in a state of unrest and the minds of the natives were perturbed and tense. In one village in which Swann was staying he was awakened in the middle of the night by a terrible uproar. On going out he found the natives rushing about half-crazy with fear, yelling, " War ! War ! " and blazing away in all directions with their guns. On going to the stockade he discovered four men outside lying prostrate, half-dead with fear He calmed the excitement and ordered the men to rise. They turned out to be four of his own followers with mails from the coast. On nearing the village one of them tripped and his gun went off. Immediately a fusilade of shot was opened on them, and had they not thrown themselves to the ground they would have been blown to pieces. This serves to show the nervous mental condition of the natives at that time. Raiding and sniping were of such constant occurrence that the natives were afraid to leave their villages, and starvation did not seem far distant. Kakungu, a chief on the eastern side of the lake, was the chief offender. His retort to Swann's protest was equivalent to " shut up ! " and he invited the white man to come and take back his flag (the British flag) if he wanted it, and promised that in the event of his coming he would be speared. In spite of the pacific nature of Swann's occupation, he saw that peace might be purchased too dearly, and determined that these high-handed acts of the arrogant bully should

cease, and a climax was reached when a poor old woman was brought into the village, terribly mutilated. So, joining forces with the Lakes Company, they marched into the den of brutes.

It was hoped to deal a smashing blow, to end the business by one sudden, sweeping stroke, so as to prevent a long guerilla-like struggle. Two Europeans went with the land force, two with the boats. Swann was to demonstrate from the lake in order to draw the enemy out from the stockades, thus permitting the land force to rush in and occupy the villages, situated about a quarter of a mile up a river which flowed through them. They were strongly fortified by a deep trench; earth was plastered up the sloping sides nearly to the top of the poles, on which thick thorns had been fixed. To get at the stockade, the ditch had to be crossed and the smooth sides of the earth embankment scaled. When that was done it was impossible to get in without climbing over the thorns. They bound oakum soaked in turpentine around arrow-heads, to set fire to the grass huts in case of failure to take the place by storm.

Having arrived at the arranged time, they found that the natives had discovered the approach of the lake division. They danced along the sand with defiant shouts. The attackers moved slowly along the bay, firing an occasional shot over their heads; this made them more bold and drew them away from the forts, which was the object wished for. The glittering spears of the land force could be seen coming over the hills at the back of the villages; but, instead of at once rushing into the stockade, then undefended, they came down to the shore to drink. Of course this gave the enemy time to get back home, and the ruse was spoiled.

Grumbling was no use, so Swann ordered his men to fire a volley and then rush the trench. This was done, but the smooth glacis afforded no foothold. Several

attempts were made but all failed. In one of them Swann had thrust the barrel of his rifle between the poles of the stockade when one of the defenders placed his gun on top of it and fired. Swann had a narrow escape as the flash scorched his right ear. He then called for the prepared arrows, and setting light to one of them fired it into the thatch of a hut near to him. This was soon in a blaze, and another party of the attackers having effected an entrance, stockade No. 1 was soon captured and the enemy in retreat across the river. A heavy fire was opened on the gateway of stockade No. 2 to prevent it being barricaded, and plunging through the river the attackers were soon in possession of Kakungu's own village, and the enemy streaming away in full flight. The insulted flag was still floating, but was hauled down by Swann. Kakungu's promise, however, was not fulfilled! And so the wasps were smoked out of their nest; Kakungu was captured and died in exile, and his followers were scattered. The effects of this smashing blow were soon apparent, for other robber chiefs found the neighbourhood unsuitable, and fled to more congenial climes; trade was secured and order restored.

It was soon after this that Swann learnt of the terrible end of the cunning old medicine-man who nearly closed his adventures by means of the elephant trap. This man had incurred the hatred of the Arabs, who accused him of exercising his witchcraft against them. They surrounded his rocky retreat and forced him to capitulate through hunger. The poor wretch was tied to some very light pith-wood trees, used by fishermen as buoys for their traps; the raft was then placed on the river, with fresh-cut goat's meat to attract the crocodiles. His tormentors sat on the bank, watching the reptiles fight for his body. This being firmly lashed, the creatures could only snap at him; the

buoyant wood prevented them from carrying him under water. It is said they tore him to pieces, and one can imagine what torture he must have suffered as he lay helplessly looking at the green-eyed monsters swimming around the raft, and trying to get a favourable opportunity of biting off a limb. When he was nearly torn to pieces the Arabs amused themselves, as they sat, by firing at the crocodiles.

After a brief holiday in the Old Country, Swann severed his connection with the Missionary Society and accepted an offer from the Government to co-operate with Sir Harry Johnston in maintaining order and punishing wrongdoers in a land in which he had already lived for so many years.

[The information contained in these chapters has been derived from Mr. A. J. Swann's book, *Fighting the Slave Hunters in Central Africa*, by kind permission of the author.]

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FRENCH
EQUATORIAL
AFRICA
BELGIAN
CONGO
ANGOLA
ATLANTIC
OCEAN
Congo
Bumba
Moang'
Basoko
Lulanga
Ruki
BANGALA
Stanleyville
Lindi
Falls
L. ALBERT
L. EDWARD
L. KIVU
Bonga
Ngombe
L. Leopold II
Kwa
Kasai
Dima
Stanley Pool
Kinshasa
BANGALA
Inzia
Songo
Luano
Kolokoto
Kongo
Lusambo
Sankuru
BATETELA
Sendwe
Congo
Nyangwe
Kusongo
Kabambare
LAKE TANGANYIKA
Leopoldville
Lumba
Matadi
Boma
R. Congo
Yee R.
Kitwit
Kwilu
Kwango
Baba
Kwengo
Wamba
Kasai
Luina
LOANDA
LUNDA
Pala
Baudouinville
MARUNGU
Pweto
Lake Moeru
KATANGA
Lake Banweulu

A Suspended Granary

To avoid the depredations of rats and of other vermin, the Bapinji have devised a suspended granary for those articles that are of special attraction to rodents, as for example ground-nuts. These granaries consist of big basket-like structures which are suspended on poles in the village.

CHAPTER XII

A WANDERER IN THE WILDS OF AFRICA

It is unnecessary to enter into the primary reasons of Mr. L. Torday's presence in Africa; it is sufficient to say that he is a traveller and explorer by nature, and a big game hunter by inclination. He has lived for a considerable number of years in unbroken and intimate relations with the natives of the interior, and, like all *true* travellers in Africa, has discovered that beneath the dusky exterior of the negro there are sterling qualities which the average white resident never discovers.

Having landed at Boma, the capital of the Independent Congo Free State, he found it such a pestiferous swamp, lacking the blessing of civilization, and having lost the glory of the wilderness, that his stay here was very brief and he went on to Kinshasa. Here European food was most difficult to obtain, and the white residents were driven to shooting hippopotami, which has a repulsive fishy taste. Prices for other eatables were exorbitant, and a state of semi-starvation existed. Torday kept a few ducks, and great was his shock one day when he was informed by his native clerk that a python had got into his fowl-house and was feasting on his fowls. He rushed to the building, but as it had no windows it was perfectly dark inside. A candle was brought and the snake was discovered coiled up and fast asleep. But roused by the noise it lifted its head and hissed. This was too much for the clerk; he dropped the candle, rushed out of the door, and banged it to, and

locked it on the outside, leaving Torday in total darkness closeted with a fifteen foot python. The situation is better imagined then described; his imagination had time to play its usual pranks before the door was burst open—and there lay the snake sound asleep; it had not moved from its place. After the reptile had been despatched Torday went to interview the clerk, and the result to Torday was a fine of two pounds with thirty-three shillings costs. But it was worth the money.

Life at Kinshasa was undermining his health, so having a position near Lake Moeru offered him he gladly accepted it. But a tremendous detour had to be made, for the country, at any rate the Kasai district, was in a terribly disturbed state, thanks to revolted Batetela soldiers and some native chiefs, that it was quite impossible for any European to pass through. To get to the lakes the only safe way was up the Congo and through the Manyema. On nearing Bumba, a district notorious for its hostility to the whites, where the river is twenty-five miles wide, and studded with islands, the powder-magazine in which were stored tons of explosives, caught fire, but a Bangala, a stoker, courageously descended into the hold, and the rest forming a chain passed bucket after bucket of water to him, and finally the fire was extinguished. The brave fellow crawled on deck quite exhausted, and was subsequently rewarded with sixteen yards of cotton cloth! But it must be emphasized that this was not the outcome of meanness, but simply because there was nothing else to give him, as personal luggage had been cut down almost to vanishing point, except those articles which were absolutely necessary for a prolonged stay in the backwoods.

The natives here were known as Ngombe, which really means bush-men, and disfigure themselves with cicatrices; moreover all the tribes in this neighbourhood are cannibals. Further up-river near Basoko, the people

use the lip-plug or labret. A hole is pierced in the upper lip and gradually enlarged until it will hold a wooden disk over two inches in diameter.

Stanleyville is a curious mixture of an Arab-European negro town. In spite of the cruelties exercised by the Arabs in their slave raids they certainly conferred some benefits; they introduced rice, potatoes, beans, etc., education, and—cleanliness. At Leopoldville, where further stores are usually bought, very few could be procured, as there was a serious shortage. Torday was able, however, to secure a generous supply of pickles. Evidently the residents did not care for pickles.

The journey was resumed in a large dug-out, paddlers being supplied from village to village, so that no man was taken far from his native place. But at one village the men refused to do the work, so Torday invited between thirty and forty women to step into his canoe under the pretext of bartering articles. Their keenness to make a bargain, innate in the native mind, brought them forward at once. Then the painter was slipped, and when the men saw the dug-out drifting down-stream with its dusky cargo they started in pursuit, but Torday told them that for every man who stepped into his canoe a lady might be taken out of pawn, and so he secured his full complement of paddlers. Torday does not excuse his action, which may be open to question, but he pleads the exigencies of the case.

These Wagenya paddlers are a fine set of men, and Torday enjoyed the thrilling experience of shooting the rapids in one of their small canoes. In the neighbourhood of Kasongo the natives believe that if they are bitten by a small insect called kimputu, they will surely die, and in many cases the fever, known as tick fever, has proved fatal. Among the Manyema there were many evidences of the tortures inflicted by the Arabs; feet burnt off and lips cut away were common forms of

cruelty. The Tamba Tamba (Arabised chief) adopted similar methods as punishments for evil doers.

From Kasongo the journey to Tanganyika had been continued by land, but a consuming fever was burning Torday up, and had it not been for his faithful servant, Makoba, who mercilessly drove him on, he would have crept into the bush and died. At last Tanganyika was sighted, and Torday was given a passage on board the *Cecil Rhodes* to Pala, the Mission of the White Fathers, where, after a fight with death, he was nursed back to health. This illness was attributed by the natives to the kimputu, from which, they said, there was no escape. After several relapses and recoveries, Torday finally regained his health.

As his position in the Katanga was merely a formal one, and more or less of a sinecure, he was free to indulge his hobbies, so he took to collecting birds, and to big game shooting. His first expedition was in search of the lost Cape Akalonga, charted by Livingstone in his map of Lake Tanganyika, and chosen as a point in the delimitation of territory between British Central Africa and the Congo State. But when the officials went to find it, they reported that there was no such Cape at all. Torday felt certain that Livingstone was correct, and determined to prove it. On his way he lost his faithful Makoba. The boy had obtained permission to bathe, but after some time a cry for help reached Torday's ears. He snatched up his rifle and called to the men to follow him and made for the river. At first he could see nothing, but soon observed traces of blood and the footprints of a leopard. Marks on the sand showed that Makoba had been knocked over and dragged into the water. Holding his rifle above his head, Torday swam over, and the spoor was picked up again. However, darkness overtook them and they had to return. The search was continued next day, and after

some time what remained of poor Makoba was found; the head had been torn off and half the shoulder devoured by the leopard. Torday ambushed, but the whole day passed without a sign of the foe. At last, when hope was given up, the beast arrived, and a bullet from an express rifle avenged Makoba.

Lions are a great pest in the Katanga, and leopards take a considerable toll of the weaker part of the population, attacking women and children. An Englishman engaged in a mining company was out shooting one day when he came face to face with one of these pests. There was only one course open to him, so he fired at it. The leopard though badly wounded sprang at him and inflicted terrible injuries on his left arm. The man tried to draw his hunting knife, but any movement only excited the brute to greater fury. At length the effects of the bullet began to tell, and the man was able to draw his knife and finish the animal off. But he was himself so weak that he was unable to roll the carcase from off him. He was discovered some time later, with the leopard still lying across him, whilst he was painfully trying to roll a cigarette with his right hand. But he died two hours later from the effects of his wounds.

At first Torday was unsuccessful in his search for the lost Cape, but at length he discovered an old man who had known Livingstone well. He led Torday to a promontory at the foot of a hill, now several hundred yards from the waters of the Lake. That was the lost Cape Akalonga, and the great explorer's map was correct after all.

At Kisabi game was abundant and lions were numerous, and Torday describes their roar, in proper surroundings, as grand music. At Pweto, a hyena tried to carry off a donkey's foal; but it had come to the wrong address, for it was found in the morning with its brains

kicked out. When Torday visited this place it enjoyed pleasant immunity from tsetse fly and lions, but a year or two later lions were numerous, the fly had destroyed all the cattle, and sleeping-sickness had made its appearance. The roaming habits of lions has been noticed in other localities; at Kanda Kanda, in 1907, lions were practically unknown, but in 1908 they became an absolute danger.

Lions become very daring when they turn man-eaters. At one village, Torday was surprised at the cordiality of his welcome. It turned out that a herd of eight man-eaters terrorised the place, and the inhabitants looked to him for relief. They would leap over the fires, and jumping on the thatched roof of a hut would break in by their weight and carry off the occupant. That same night, Torday was awakened by the whining of his dog, so he got up, took his rifle, and carefully opened the door of the hut, and saw just beyond the fire a greyish mass, and the glittering eyes of a beast of prey. He carefully returned, and fastened a piece of white paper to the foresight of his barrel in order to ensure his aim; then kneeling and resting his rifle on the doorstep which was about a foot high, he took careful aim and fired. The shot roused the whole camp, and general confusion followed. After waiting for some time he advanced nearer and there lay a fine lion, stone dead. This appeared to have scared off the other lions, for no more were seen or heard.

Following the Congo, Torday reached a veritable hunter's paradise. But one day, walking along a native track followed by one of his men, he heard a scream, and turned round in time to see the man tossed into the air by a bull buffalo. Before he could shoulder his rifle the man was down and the buffalo trampling on him furiously. Torday fired and brought the animal to his knees, and a second shot finished him. He was a

solitary bull, driven from the herd, and therefore trebly vicious.

After some desultory wandering about Lakes Bangwelo and Kisale, with a train of porters lent to him by Mokandu Bantu, the son of M'Siri, the famous former king of the Kalanga, Torday retraced his steps to the Portuguese frontier, but found himself in an awkward predicament. The Batetela rebels, mentioned already, were retreating to the same frontier, pursued by a punitive expedition, and Torday was hemmed in between the frontier and the rebels, who were not likely to discriminate between combatants and non-combatants, and with every chance of falling in with them. His porters, however, were staunch, and proceeding with great caution they passed the danger zone, and reached home safely.

After a short visit to England, Torday found the " call " too strong for him, and shortly afterwards found himself at Kinchasa, a little beyond Leopoldville on the Congo, a place notorious for the abundance of mosquitoes and snakes. A stern-wheeled vessel makes a weekly journey between Kinchasa and Dima, the head-quarters of the Kasai Company. On board, Torday and a fellow passenger entrusted their precious European provisions, which were to last for a very long time, to a native " chef " who had come to them with very flowery credentials, and his first attempt was a nauseating mess, boiled for six hours, of which the ingredients were everything he could lay hands on, including currants, and this he called " Irish stew ! " Bread and cheese formed the one and only item of *that* dinner. Torday met several old acquaintances, and soon was established as such a favourite that when a fly fell into his soup three dusky hands at once dived in to fish it out !

At Chimbana a call was made, and hemp was brought

to the vessel for smoking purposes, a most pernicious habit. Torday bought all that was offered for sale and promptly burnt it, greatly to the disgust of the smokers. On the afternoon of the fourth day on the Kwilu, which falls into the Congo some distance west of Dima, Kongo was reached, a settlement with one permanent resident of white blood, and where Torday disembarked. Here, after some trouble, he secured a good servant and cook, named Bokale. At Kongo both vegetable and animal food were very plentiful, and yet cannibalism was very rife. How can this be explained ? Slaves are purchased and eaten, and a chief sent to Torday what he euphemistically called an " antelope leg," but which Torday recognised as being human. Needless to say it was returned with a reprimand for so " improper " a present

While here, Torday was called on to arbitrate between two villages on the question of the accidental slaying of an inhabitant of one of them. The chiefs were grateful for his assistance, but at the same time his decision that no compensation need be paid did not give universal satisfaction. Torday puts this down to the fact that the minds of the black and white men do not consider such matters from the same point of view.

A few days afterwards Torday set out for Kolokoto, in the Bambala country. Kolokoto is a small village of about one hundred inhabitants in all. The chief, Kikungulu, was a man of repulsive appearance, and universally detested, but believed to possess magic powers. Torday was in need of a servant, and had marked one intelligent boy as well suited for his purpose. But the boy was the chief's bondsman and could do nothing without the chief's consent. So negotiations were opened, and after beating down several preposterous demands for compensation, Torday secured the boy as his servant. He proved truthful

A Typical Woman from the Tribe of Zappo Zap

The more the traveller goes eastward, the more refined the features of the natives become, in some specimens one finds very few of the characteristics usually attributed to negroes. The black colour so common on the West Coast, is replaced by a soft chocolate-brown, which in certain individuals merges into dark yellow. Kasai people speak of the inhabitants of the Lower Congo as "black negroes."

and honest, and of great value in securing information of ethnological interest otherwise unattainable. Early one morning, Torday heard the firing of guns in the village, and enquired the reason. Meysey, the boy, replied that there was to be a funeral, and volunteered the information that a man was to be buried alive for witchcraft, having been proved guilty by the poison ordeal. Torday made his way to the place and saw a good-looking grey-beard seated near a freshly-dug grave, eating and drinking, and near him stood Kikungulu. Torday asked the chief if what he had heard was true, and he replied that it certainly was. After remonstrating for some time, Torday seized the chief by the throat and threatened to strangle him unless he gave the man up. The crowd grew restive and things began to look serious when Meysey ran up with his master's rifle. Meantime the chief was growing grey in the face, and finally yielded, and Torday marched the rescued man off to his own hut followed by the hooting of the crowd. The guardianship of his guest was henceforth rather a trial to his host; Torday's own men objected to the stranger's presence, who had to be fed from private stores to guard against poisoned food; arrows whistled in close proximity to Torday's own person, and, moreover, the man seemed absolutely careless and indifferent to his own safety. This led to his undoing, for he went out one day, never to return, for his body was found in the forest clubbed to death.

After this, relations were for some time strained, but at last the chief made what looked like conciliatory advances. He begged Torday to take a young son of his into his service as a help in the cooking department. Torday willingly consented. But some days later he detected a bitter taste in his coffee, and summoned his cook, who denied all knowledge of the matter, and offered to drink the coffee. This he did and soon

after was howling, doubled up with violent pains in his stomach. An emetic relieved him, and then Torday himself had a similar attack. The same day the youthful assistant disappeared, and it was subsequently discovered that it was a deliberate attempt on the part of the chief to murder Torday.

After a stay of two months, Torday determined to make a move into the southern country. But this was by no means plain sailing, for the quarrel with the villagers did not make them any the more ready to offer their services, but he succeeded in starting with twenty men, taking only about four hundred pounds weight of necessary materials.

From Kolokoto the country rises steadily for about an hour's march till the great plateau is reached which forms so great an obstacle to communication even for the natives themselves. It extends some seven hours' march north-east to south-west, a barren, flat expanse of sand with patches of thin grass less than two feet high. In the whole area of four hundred square miles there is but one single tree which is visible from every part of the plateau; beneath it are the remains of hundreds of camp fires, for it affords the only shade from the burning rays of the sun. There are no birds to be seen there; no animals, not even rats, for they cannot find any means of subsistence; the only living inhabitants of this desert are aggressive brown flies, which settle on white man, black man, goat or dog, indiscriminately, to suck their blood. The men suffered from want of water, as the man to whom the large water-jar had been entrusted had carefully emptied it, offering as an excuse that it was easier to carry when empty than when full!

At Punza, the first village just below the edge of the plateau, food was very scarce, and the accommodation abominable. At Mosonge the carriers, according to

agreement, were dismissed, and Torday bought a hut for himself from the chief, Kwilu. This man, though a chief, was a clever blacksmith, and proved an excellent fellow. The scarcity of food and game compelled Torday to become vegetarian, living principally on cassava bread. The quantity of water he consumed was not far short of a gallon a day, and naturally drinks between meals were necessary to get through this allowance. Now this is not so simple a matter as it seems. It is a native custom when anyone drinks for all present to sit down on the ground and to lower modestly their eyes. Sometimes when he visited the interior all the people of the surrounding villages came to see him, and if he raised his glass to his mouth they never failed to drop to the ground with one accord; if by chance anyone failed to carry out this duty of politeness, his neighbours did not fail to recall him to his senses with a vigorous nudge.

As it was quite impossible to obtain carriers, Torday determined to leave the bulk of his goods at Mosonge in charge of one of his followers, and push on south with two attendants, his faithful Meysey and Bokale. The first day's march took them to Kisai, a village of the Basamba, one of the earliest Bantu populations of the country. Their settlements extend over an enormous area in proportion to the population; for each village is formed of so many separate hamlets of two or three huts, with intervening tracts of bush, twenty yards or more in breadth, traversed by narrow paths. This forms an excellent defence against the aggressive Bamballa and Bayaka neighbours, with whom the Basamba are never on better than cool terms, and there were constant forays and alarms.

The old chief was on especially friendly terms with Torday, so much so that he was very desirous to make him his daughter's affianced lover. Torday offered

no objection as it implied no obligations of any kind beyond an occasional present to the father and daughter; moreover, the young lady was only four years of age.

Leaving Kisai, Torday reached the Yee river, where he saw for the first time the Bayaka. At the village of Yee, on the Yee river, Torday was well received by the kiamfu or chief. In former days the kiamfu, when he rose from a sitting position, did so with the aid of two slaves, one on either side, into whose backs he dug a knife. This he did out of mere ostentation, in much the same manner as one of the *nouveau riche* might light his cigar with a bank-note. On the march from Yee to Zange two rivers were crossed, the waters of which literally teemed with fish. By good luck, Torday happened to have with him some fish-hooks. A large one was selected, weighted and cast, but unfortunately it caught in the ear of a bystander; the second cast landed in a tree; and at the third cast the hook caught in the trunk of a floating tree, so Torday handed the line over to one of his men in disgust. The man baited it and threw, but with no result. Time after time this was done but to no effect. So tired of this waste of energy, Torday determined to adopt a policy of masterly inactivity. He threw the hook properly baited into the water, then after tying the line to his leg threw himself at full length on the bank to await events. He had not long to wait for a tremendous tug warned him that he had hooked something large. He tried to undo the line but it had become entangled, and to his dismay he discovered that he was assuming the rôle of a fish and was being gradually drawn towards the water. He clawed at the earth, but there was nothing firm to grasp. His feet and part of his legs were submerged and he yelled for help. His man ran up, but by the time he had gone through all his pockets in search of a knife to cut the line, Torday

was up to his shoulders in the water. When the line was cut he got out of the water and sat down silently, quite stupefied. Suddenly the man gave a yell of triumph and dashed into the water towards a floating tree on which he climbed and sat waiting events. Soon the tree stranded on a sandbank, and it was seen that the line had become entangled in the boughs, and the combined weight of tree and fish had dragged Torday into the water. It took them two hours to land the fish, which was a veritable freshwater leviathan. Torday could not understand how the line had stood the strain.

Torday next visited the Luye river where are some beautiful falls, then on to Mokunji, notable for its good-looking girls, and its chief Baka, famous for his legal knowledge, then to Putumbumba renowned for its basket-work, and back to Mosonge, whence he returned to his original base at Kongo.

CHAPTER XIII

A WANDERER IN THE WILDS OF AFRICA

TORDAY'S next expedition was to Luano, some distance north of Kongo. His dwelling here was a palace when compared with many filthy huts he had previously used. The situation was a pleasant one, overlooking the river, and the three rooms spacious. His first care was to issue a notice that anyone who was ill could receive medical treatment from him. Applicants resolved themselves into three classes—those who were willing to pay a small fee, those who would not pay any, and those who wished to be paid for being treated. No scale of fees was produced. The pharmacopœia was not large; in fact, Epsom salts was the chief medicine, as most of the patients were suffering from indigestion. Torday soon gained the confidence of the natives, many of whom would come to him not for medical advice but for conversation. The chief topic was the war then raging between the Bayanzi on the one side, and the Bambala and Wangongo on the other. This seemed to be a serious matter for the country, and Torday resolved to intervene at the earliest possible opportunity. He was confirmed in this resolution by a conversation with Boma, chief of Luzubi, who was a leader of one of the contending parties, but was quite willing to submit to arbitration.

First of all a visit was paid to Luzubi and the consent of all the chiefs obtained; then Torday journeyed south-east to the scene of the battles. This entailed wary walking, for the land being in a state of war all preparations had been made to receive an enemy. The

grass was six feet high, and, on either side of the path, only a foot broad, were sharp stakes pointing in the direction of the advancing party, which would infallibly impale the incautious traveller who wandered from the straight road. In the centre of the path were carefully masked man-traps, holes three feet deep by a foot broad and two feet long, too small to permit the victim to fall completely into them, but containing five pointed stakes which seldom failed to pierce his feet. Torday's feet being protected by boots, he led the way, trying the ground at each step to see if it were solid. Near the village of Gangan was a specially elaborate device; in the centre of the path was an ordinary man-trap, the covering of grass and sand removed as if by accident; but the unwary traveller who took warning at this and stepped aside was plunged into one or other of two much larger pitfalls in the bush on either side. Farther on, a little hillock with three arrows stuck in it and pointing in the direction of the village, formed a plain indication to the natives and those who understood their language that entrance was forbidden.

All the grass and bush for several hundred yards round the village had been removed, and when Torday's party appeared some hundreds of warriors rushed out of the village with arrows fixed to their bows. Torday's carriers bolted with the exception of Meysey and Bokale, but Torday, assuming a nonchalant air, and lighting a cigarette, sat down on a campstool and pretended not to take any notice of the warriors. They were somewhat taken aback, but one of them approached and asked him who he was, what he wanted, and did he know that they were at war. To this Torday replied that his name was Deke (a name given to him by the Swahili-speaking people), that he had business with the chief, and as to the war, it was no concern of his. He said he had no soldiers with him, and that even his own rifle was on the

ground some distance away. The man went to speak to the chief, and soon returned with many apologies for their suspicions.

Torday was led into the village accompanied only by his two boys, and there met the important chief, Chitutu, who, after presents had been exchanged, expressed his willingness to treat with Boma, but showed his anger against the Wangongo. However, he consented to summon a *milonga* or council, and soon messengers were speeding in all directions to summon the people. Meantime Torday took out an old copy of the *Graphic*, and held it so that the natives might see the pictures, of which that of a well-known advertisement excited their wonder most. Thus their interest and curiosity were aroused, and their suspicions lulled.

At length the palaver began and lasted two whole days, owing to the vigorous opposition of one of the chiefs; but he was at length silenced and the council came to a satisfactory conclusion. But now the question of carriers arose, for Torday's men had bolted. Two rivers had to be crossed, the intervening space having been the battle-field of the belligerents. The Bayanzi offered to come as far as the first river and leave the rest to the Bambala. They on their part refused to cross the second river; so Torday stood a fair chance of being stranded between the two, until Boma, with magnificent courage, crossed the no-man's-land and shook hands with the Bayanzi chiefs. And so the peace was ratified.

After a stay of six months at Luano, Torday moved on to Kikwit on the same river, the Kwilu, but considerably further south. Kikwit is a European settlement, called by the natives Matari, after the stone which there forms the banks of the river.

Torday was received with open arms at Kikwit, for his reputation had preceded him from Luano. Shortly

A Python

Pythons are very common in the Congo. They sometimes reach twenty-five feet in length and can swallow a whole goat, or, as in the case depicted, a pig. No case, however, has come to my knowledge of a child having been killed by them. When a snake has been killed by the natives they make him disgorge his prey and eat it as well as the snake.

after his arrival disturbances were reported at Baba, on the River Kwengo, about three days' journey to the south-west, and so he set out to investigate the cause, which was the usual one. The overbearing behaviour of the European resident had incensed the natives and his life was in danger. He was told a few unpalatable truths and packed off to find another sphere of usefulness, to the great delight of the natives. On the first day of their return journey they crossed the Yambesi by a vine bridge. This is made by loosening from the trees the wild vines, which twine themselves round their branches; when the ends are brought sufficiently low, poles, twelve feet or so in length and six inches thick, are made fast to them, and, if necessary, other vines brought from the forest to make the vine cables equal to any strain likely to be put upon them. To the end of the first pole is lashed a second, which is likewise attached to the branches of the over-hanging trees on both sides. More and more poles are brought, to the number, perhaps, of a dozen in all, till the river is bridged, each pole being made fast as before. The bridge is not horizontal from end to end, but rises some twelve feet in the middle, the centre poles being attached to the highest branches on each side. The total breadth of the bridge is simply the width of the pole, but there is no danger of slipping off, as the sides are guarded by a network of vines three feet high, which forms an effective barrier. Such bridges are for African circumstances an absolute luxury, and the traveller may think himself fortunate who finds such a one at his disposal.

Near Kisamba, Torday had a nasty accident, for he fell into an antelope pit, but suffered nothing worse than a shaking and some bruises. If this pit had had, as is usual, a sharp stake fixed in the bottom, the consequences might have been serious, if not fatal. On another occasion in Katanga he was travelling with

another European to whom he had lent some of his carriers, as his purse was too light to engage sufficient for himself. Torday was out shooting for the pot when he fell into a pit. Being alone he fired off his rifle a number of times, but no help came. A considerable time passed during which he fired off more cartridges, and at length one of his men peered over the edge of the pit. Torday asked his white companion if he had not heard the shots. "Oh, yes," he coolly replied, "I did; but I thought you were being attacked, and went on!" Torday took back his carriers, and left his valiant "friend" to look after himself.

At Mosongo the chief, a regular Daniel Lambert, and full of his own importance, came to meet Torday, and bustled every one about in a most irritating fashion. At length this so exasperated his wives that they banded together and gave him a sound drubbing with fist and tongue, then asked him if he wanted any more. To save his dignity the chief explained to Torday that his wives were very playful! On reaching the river Djari there was, of course, no bridge, and the carriers professed they could not swim, so they were despatched with axes to find material to make a bridge. Meanwhile Torday and his boys swam across and were enjoying a meal when the carriers returned. Seeing that their labour had been in vain, they reviewed the situation and all swam across without accident, each with his burden on his head. They were expert swimmers.

The Luchima, generally a foaming river, was not so easily crossed. The only means of transport was a crazy raft of three logs of very light wood, poled or paddled over. As the air was full of bees and flies, Torday determined to cross without delay, but decided to swim behind the raft. In mid-stream the man lost his pole and immediately the raft shot down-stream at express speed. Torday exerted all his strength and

succeeded in edging the raft among the branches of an over-hanging tree, and emerged thoroughly exhausted and covered with scratches and bruises from the branches. The Bakwese, who had provided the raft and the paddler, saw in this accident a good opportunity for making additional and extortionate demands on the goods still to be transferred; so Torday undertook the rest of the transport himself, and after six hours' labour left the river, leaving on the bank half the original fee the Bakwese had demanded.

Torday's object in not following the same route back by which he had set out was that he wished to visit Yongo, chief of the Bakwamosinga, whose reputation for bravery was widespread. This reputation was enhanced by the disrespect with which he had hitherto with impunity treated Europeans. When, therefore, it was learnt that Torday intended to pay a visit to this African Napoleon, great wonder was expressed at his foolhardiness.

The foaming Biere was crossed by a pole bridge and Maginoka reached, a village which had recently been attacked by Yongo. The villagers showed their wounds, and Torday sympathised and promised to do the best he could for them with the great chief. They doubtfully shook their heads, and expressed a hope that he might return safely. The journey was resumed until a broad swamp was reached beyond which lay the Lufuku. One of the carriers who knew Yongo was despatched to warn the chief that an unarmed European wished to visit him, and at the same time to hint that disastrous consequences would follow any violence to body or goods. Yongo replied that he would be delighted to receive his visitor, and that the friendly feeling was reciprocated.

Yongo village, named after its founder, is situated in a strong position between the Lufuku itself, bordered by a swamp, and the Ponde, whose course lies through the

middle of another swamp. It is a natural stronghold, and any attack upon it would be an exceedingly dangerous proceeding, for it is impossible to cross the raging Lufuku either on rafts or by swimming, and the simple bridge over it would not survive a few blows of an axe, while the crossing of the Ponde involves half an hour's wading thigh-deep in a swamp, a condition which does not conduce to celerity of action. It was Yongo's habit to cut down the bridge as soon as a caravan had crossed it, thus keeping them prisoners until he had selected anything in their loads which took his fancy.

The village itself contains many thousands of warriors, and extends over a large area. Bows and arrows are not their only weapons; they possess muzzle and even breech-loaders. When the loads had been safely deposited on the right bank of the Lufuku, Torday found himself greeted by a howling mob of men who brandished their bows and guns in the air; their intentions were, however, good; they merely wished to show off their strength and their guns, of which they are exceedingly proud. He was led to a place swept clean for him to await the chief's invitation. Yongo was ready and one of the elders led the visitor into the royal enclosure where his tent was pitched. Torday was conducted into a kind of shed behind the houses, and there the chief was seated, while behind him were a number of upright sticks with a human skull on the top of each. He was surrounded by several old men, and against him leant Totchi, his favourite son. He was simply dressed in a loin-cloth, and one single bracelet of brass encircled his right arm. His physique was exceptional; his hair was sprinkled with grey; and he appeared to suffer much from rheumatism.

Conversation opened with the usual complimentary and laudatory speeches of which the theme was Yongo, the Great! A warning then followed that he should

HEAD-DRESS OF AEMBA GIRL

This head-dress is usually worn by warriors. It is tied by a string to the back part of the head. A piece of ivory is suspended from her neck attached to a string of beads. Her tribal marks may be seen on the forehead and side of the face. She looks stern while facing the camera, but in daily life she is full of fun.

reform his ways on pain of utter extinction. The warning seemed to sink in, for he retired to take council, and on his return announced that he had decided to make peace with his neighbours. Presents then followed, but Torday excused himself from giving one, for, he said, he did not feel equal to make a gift of any sort to one so great as the chief described himself. Yongo saw the joke and laughed heartily. A return visit was made, and Torday was impressed with his shrewdness and ability.

Chatula, Yongo's brother, was the chief magician, and had shown great hostility to Europeans as well as to the neighbouring tribes. Torday's fame as a doctor had spread abroad, thanks to his followers, and Chatula having some bad sores on his legs, came to be treated. This was Torday's opportunity, so he sent round secretly inviting the people to his hut. When they arrived they found the white stranger doctoring their chief magician. He pointed out the absurdity of the position. They were quick to see the point, and howled their applause, and from that day Chatula's power began to decline. Torday clinched this later on when Chatula ventured to interpose in a matter relating to Yongo's future conduct, and simulating anger, asked who this slave was who interfered in a discussion between two great men. Chatula took his punishment well, and, on the whole, Yongo was not displeased.

Although his mission was crowned with success, Torday was not sorry to leave Yongo's village behind him, and retracing his steps to Luchima, headed directly for Kikwit by the shortest route, reaching it after a month's absence, when all hope of his return had been abandoned.

Torday's success with the natives arose from the fact that he never offended their susceptibilities and was most careful in his respect of their customs. He

acknowledges that he did on several occasions infringe this punctilious observance, but that was with the Machiavellian intention of creating an opportunity for apologising afterwards and paying any attendant fine with willingness, all calculated to increase his popularity.

A peaceful life at Kikwit was not to be Torday's lot, for a war had been carried on for two years between Moangi and Bumba, and it assumed such dimensions that the whole peace of the district was threatened. He therefore set out in the hope of adjusting differences. These had originated in the firing of the bush belonging to Moangi by the people of Bumba. This means more to the native than is apparent on the surface, for the firing drives out the rats and other small deer on which the natives feed, and the grievance of the Moangi was that the people of Bumba had killed game which did not belong to them —a clear infringement of the game law.

The chiefs of both parties were willing to accept intervention, and it was arranged that the two opposing chiefs should come alone and unarmed and meet Torday midway between the two forces. But the Moangi warriors would not allow their chief to go alone, and Torday's own followers expressed the same feeling towards their master. Nothing would dissuade them, so he set out with the chief, accompanied by several hundred warriors armed to the teeth. On arrival at the rendezvous they found the chief of Bumba already there with all his warriors. This was a critical situation. The great thing was to keep the two bands apart, and bring the chiefs together. The Moangi chief consented to this, but the Bumba chief refused. Persuasion and sarcasm had no effect, so the only thing left was to run from one party to the other like an express messenger, under a burning sun, carrying the views of each to the other. At last, after several hours of toil, a satisfactory conclusion was arrived at, and there only remained the

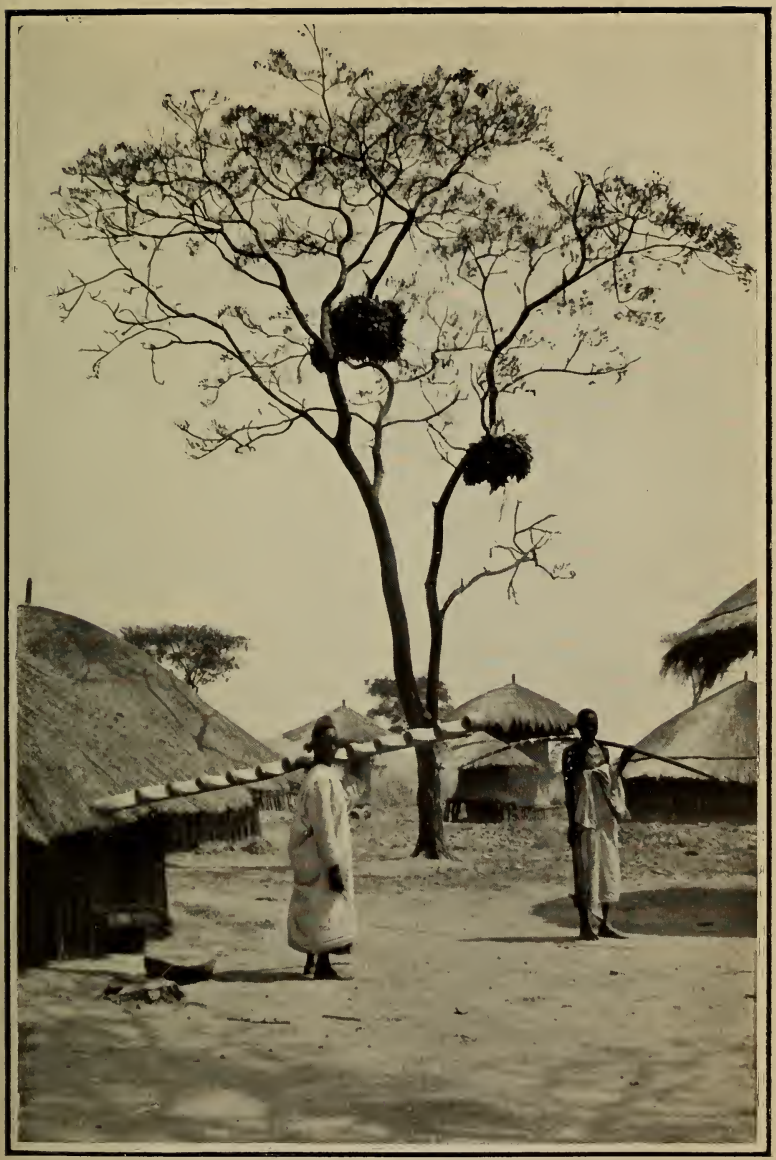
application of *kissi*, i.e. fetish or charm, to make the peace binding. But where was the *kissi?* It had been forgotten. But that useful boy Meysey came to the rescue. One day he had opened a box of *poudre de riz*, and asking what it was, was told it was *kissi*. Thinking *kissi* would be useful on such an important occasion he had brought it with him and now handed it to Torday. So these African potentates were solemnly powdered from head to foot with toilet powder, and a bloody and dangerous war stopped. If any censorious person objects to this innocent deception let him put himself in Torday's place.

Then a visit to Yongo showed that the great chief had faithfully kept his promises. A visit to the village of Murikongo, a charming old man, as much respected as Yongo was feared, followed. To reach this village the Biere had to be crossed by means of a so-called bridge. This consisted of a single log of wood, some three feet below the surface of the water, so the only way to cross in safety was to cling for support to the shoulders of the man who preceded, who had to trust to his own sure-footedness. A feeling of amour-propre prevented Torday from accepting the offer to carry him over. A visit to Momambulu, chief of the Bakwasamba, with whom Yongo had been at war then followed. The most prominent part of his costume was his head-gear, a cap of red cloth bordered by two three feet wings stiffened with wire, closely resembling the head-dress of Alsatian peasant women. His uniform coat must, to judge by its gorgeousness, have once belonged to the general of a South American Republic, but the rest of his clothing was hardly to match; it was simply a piece of native cloth round his loins. As usual, the theme of his conversation was his own prowess in the field; he was thankful that Torday's intervention had saved Yongo and his people from utter extermina-

tion; but Torday's opinion was that the boot fitted the other foot remarkably well! Another visit was paid to Yongo, and it was arranged, with Yongo's consent, that Totchi, his favourite son, should accompany Torday to the river in order to see some of the wonders of civilisation; but when the time of departure came Totchi was not to be found—he had been hidden by his mother's relatives, so Torday, much to his disappointment, was obliged to start without him.

An enthusiastic reception was accorded Torday on his return to Kikwit after an absence of six weeks. Torday had become the fairy godmother or mediator in those cases matrimonial where a hitch had occurred, and he was almost immediately called upon to exercise his functions. Love affairs are carried on, as a rule, in the greatest (apparent) secrecy, but every one knows what is going on. Even if one goes into a strange village where not a soul has seen him before, it is not difficult to pick out the girls who have a love affair on hand; they are oiled and painted and carry all the family jewellery round their necks; red beads have been imported in great quantities, and the girls, to make themselves beautiful, wear several pounds weight round their person. Not only so, but the love-sick maidens are unmercifully teased by their fellows; one sees a knot of girls standing talking, and all of a sudden they begin to laugh, the loved one excepted, and all run off. It not infrequently happens that a man, in order to secure his bride as soon as possible, will give himself as a pledge for the bride-money advanced by a wealthy man, and thus practically put himself in the position of a slave—a great proof of devotion and self-sacrifice.

[The information in these two chapters has been derived from Mr. E. Torday's book, *Camp and Tramp in African Wilds*, by kind permission of the author.]



A Well-kept Village

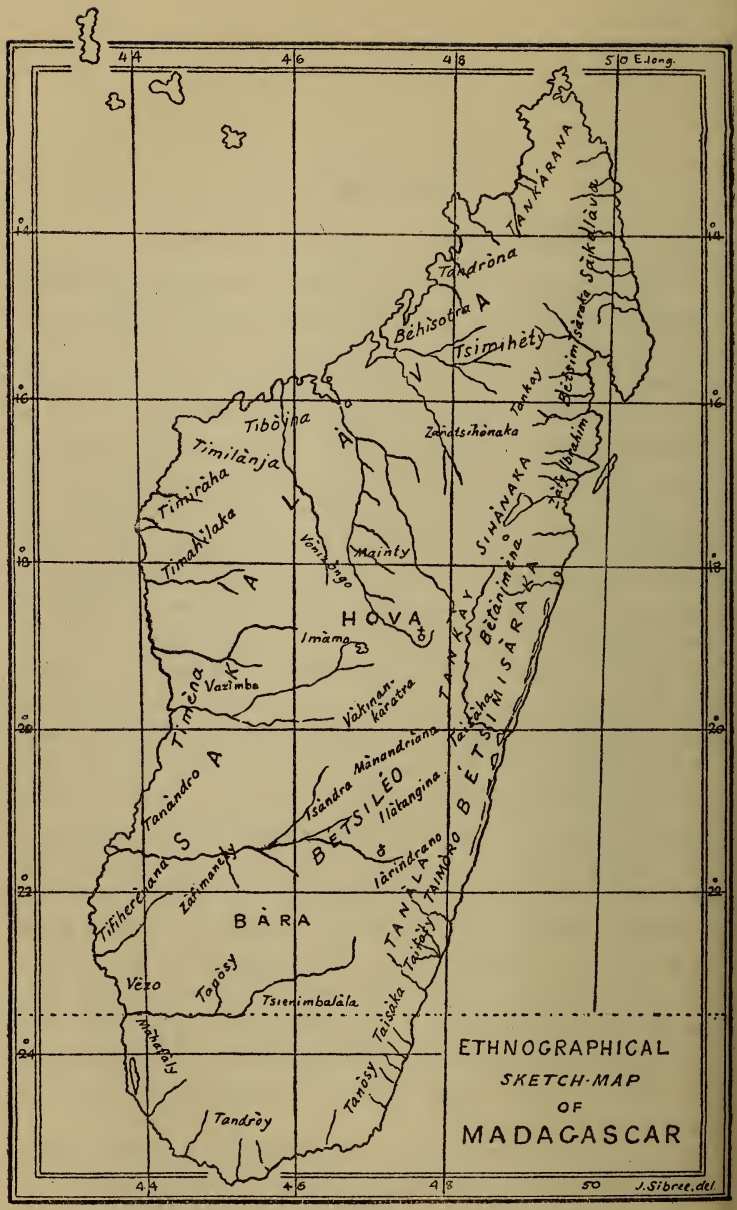
The native on the left has bought a new garment and fez, showing he has adopted Mohammedanism. He is carrying a ladder of the kind used all over Africa for getting on to huts. The man on the right is carrying a piece of sugar-cane. A flat stone for grinding rice is on the left. From the tree the seed for next year is suspended to preserve it from rats and white ants.

CHAPTER XIV

MADAGASCAR : NATURE'S MUSEUM

It is remarkable how little is known, except to comparatively very few, of the great African island of Madagascar, an island so rich in evidence of past life, both animal and vegetable, and so prolific of the present. Here was the home of the gigantic and now extinct æpyornis as it is to-day of the lemur and the aye-aye. When compared with the vast continent against which if nestles, it is difficult to believe that it is really one thousand miles long and more that three hundred miles wide, with an area of two hundred and thirty thousand square miles, thus exceeding that of France, Belgium and Holland all put together. It contains an extensive elevated region occupying about two-thirds of the island to the east and north ; and as the watershed is much nearer the east than the west of the island, almost all the chief rivers flow, not into the Indian Ocean, but into the Mozambique Channel. A belt of dense forest runs all along the east side of the island, and is continued with many breaks along the western side, and scores of extinct volcanoes are found in several districts of the interior. Since 1895, when the island was taken over as a colony by the French, the country has been very much opened up, and the exclusiveness against the foreigner broken down. So late as the year 1899 the journey from Tamatave, the chief port, to Antananarivo the capital, took eight days by road, whereas now it takes but one by rail.

When Dr. Sibree, who is still living, first landed some thirty years ago in Madagascar there were no luxurious


44
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TANKÀRANA
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Timahlàka
Vàtimbigo
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HOVA
Imàma
Vazimba
Vàtnanakàratra
Tsiàfaka
Tanàndro
Tsàndra Mànandriana
BETSILÉO
Ilàtangina
Iàrindrano
Zafimaniry
Tifiherèana
BÀRA
Vèzo
Tagòsy
Tsienimbalàla
Matsiatra
Tandròy
Tagòsy
Taisàka
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TAMBÒRO
BÉTSIMISÀRAKA
Betànimena
Sihànaka
Zafindrahim
Tankay
Zafiratsihònaka
ETHNOGRAPHICAL
SKETCH-MAP
OF
MADAGASCAR
J.Sibree.del

liners or Messageries Maritimes; he had to make the passage from Port Louis, the capital of Mauritius, to Tamatave by means of a " bullocker." This is a vessel which has been condemned for ordinary traffic, but is still considered good enough to convey from two to three hundred cattle from Tamatave to Port Louis or Réunion. It is hardly necessary to say that a voyage by such means was anything but pleasant. Happily the passage was a quick one, taking only three days. The harbour of Tamatave is protected by a coral reef, which has openings to the sea both north and south, the latter being the principal entrance ; it is somewhat difficult of access, and the ribs and framework of wrecked vessels are very frequently seen on the reef. Sometimes many hours and even days were spent in attempting to enter, but on this occasion the wind had proved unexpectedly favourable, and soon the cable was rattling through the hawse-hole and the vessel swung round at her moorings.

At the time of Dr. Sibree's arrival Tamatave had not a very inviting appearance from the sea, and had it not been for the luxuriant vegetation of the pandanus, palms, and other tropical productions, nothing could have been less interesting than the native town, which possessed at that time few European residences. But in a comparatively short time, under French influence, the place was transformed ; many handsome buildings —offices, banks, shops, hotels, and government buildings —have been erected ; the town is lighted at night ; piers have been constructed, and in the suburbs shady walks and roads are bordered by comfortable villa residences and their luxuriant gardens. These form a striking contrast to the native huts when Dr. Sibree first landed, which were constructed of a framework of wood and bamboo, filled in with the leaves of the pandanus and the traveller's tree. In a few of these

some attempts at neatness were observable, the walls being lined with coarse cloth made of the fibre of rofia palm leaves, and the floor covered with well-made mats of papyrus. But the general aspect of the native quarter of the town was filthy and repulsive ; heaps of putrefying refuse exhaled odours which warned one to get away as soon as possible. In almost every other house a large rum-barrel, ready tapped, showed what an unrestricted trade was doing to demoralise the people.

The houses of the Malagasy officials, however, and those of the principal traders were substantially built of wooden framework, with walls and floors of planking, and thatched with the large leaves of the traveller's tree. No stone can be procured near Tamatave, nor can bricks be made there, as the soil is almost entirely sand ; the town itself is indeed built on a peninsula, a sandbank thrown up by the sea, under the shelter of the coral reefs which form the harbour.

Before proceeding up-country a visit was paid to the Governor of the town and, as it was one of ceremony, it was the correct thing to use a *filanjàna*. This consists of a kind of armchair slung on two poles, carried on the shoulders of four stout men, or *maromita*. A courteous reception was given by the Governor, who was dressed in English fashion, with black silk top-hat and worked wool slippers. Needless to say the conversation was carried on by means of an interpreter.

Next day preparations were made for the journey into the interior, to Antananarivo, the capital of the island, and as roads, according to our ideas, were conspicuous by their absence, and the travelling was sure to be rough, everything had to be securely packed except such articles as were absolutely necessary on the journey. It was not until the year 1901 that a railway was commenced from the east coast to the interior, and it is only within the last three or four years that direct

communication by rail has been completed between Tamatave and the capital. But until the French occupation in 1895, a road, in our sense of the word, did not exist in the island ; and all kinds of merchandise brought from the coast to the interior, or taken between other places were carried for great distances on men's shoulders. There were but three modes of conveyance, viz., one's own legs, the *làkana* or canoe, and the *filanjàna* or palanquin. During the first thirty years of Dr. Sibree's residence in Madagascar there was not a single wheeled vehicle of any kind to be seen in the interior, nor did even a wheelbarrow come under his observation during that time. The lightest carriage or the strongest wagon would have been equally impracticable in parts of the forest where the path was almost lost in the dense undergrowth, and where the trees barely left room for a palanquin to pass. Nor could any team take a vehicle up and down some of the tremendous gorges, by tracks which sometimes wind like a corkscrew amidst rocks and twisted roots of trees, sometimes climb broad surfaces of slippery basalt, where a false step would send bearers and palanquin together into steep ravines far below, and again are lost in sloughs of adhesive clay, in which the bearers at times sink to the waist, and when the traveller has to leap from the back of one man to another to reach firm standing-ground. Shaky bridges of primitive construction, often consisting of but a single tree trunk, were frequently the only means of crossing the streams ; while more often they had to be forded, one of the men going cautiously in advance to test the depth of the water, and occasionally disappearing.

The first stage of the journey to Hivòndrona, a large straggling village, was without incident, but full of interest. The path was bounded by coco-nut palms and broad-leaved bananas, as well as thousands of

agaves with long spear-shaped prickly leaves ; nearer the sea stretched unbroken lines of pandanus, and everywhere the pure, white flowers of orchids relieved the monotony of the dark foliage. Flocks of small green and white paroquets, green pigeons, scarlet cardinal-birds, and occasionally beautiful little sun-birds, with metallic colours of green, brown, and yellow flashed overhead, while butterflies and other insects crossed the path at every moment. The arrangements for passing the night at this village were primitive but pleasant, marred only by the assiduous attentions of a lower form of life. Next morning the journey was resumed for some distance down a river by means of dug-outs. These are hollowed out of trunks of trees, and having no keels are crazy craft requiring skilful handling. In the shallow water grew numerous gigantic arum lilies bearing flowers more than a foot in length. After covering a considerable distance by water the journey on land was resumed, the path running close to the sea. Hundreds of little red crabs, about three inches long, were taking their morning bath, or watching at the mouth of their holes, down which they dived instantaneously. One or more species of the Madagascar crabs has one of its pincers enormously enlarged, so that it is about the same size as the carapace, while the other claw is quite rudimentary. This great arm the little creature carries held up in a ludicrous, threatening manner as if defying all enemies. On the shore fine large shells of the *Triton* were found. These were used to call assemblies of the people ; a hole is bored in one side of the shell, and when properly blown it gives a deep and sonorous sound, but this requires some dexterity.

On this, the east coast, for about three hundred miles south of Hivòndrona there is a nearly continuous line of lakes and lagoons. They vary in distance from the sea from a hundred yards to a couple of miles, and in

many places look like a very straight river or a broad canal. They are caused probably by the east coast rivers being continually blocked up at their outlets by bars of sand driven up by the prevailing south-east trade-wind and the southerly currents. King Radàma I saw the advantage of connecting these lagoons, and so forming a waterway between the coast towns and Tamatave. The work was commenced but was interrupted by his death and not resumed until the French took it up again, and for twelve years a service of small steamers ran until the railway from the capital to Tamatave caused it to fall into comparative disuse.

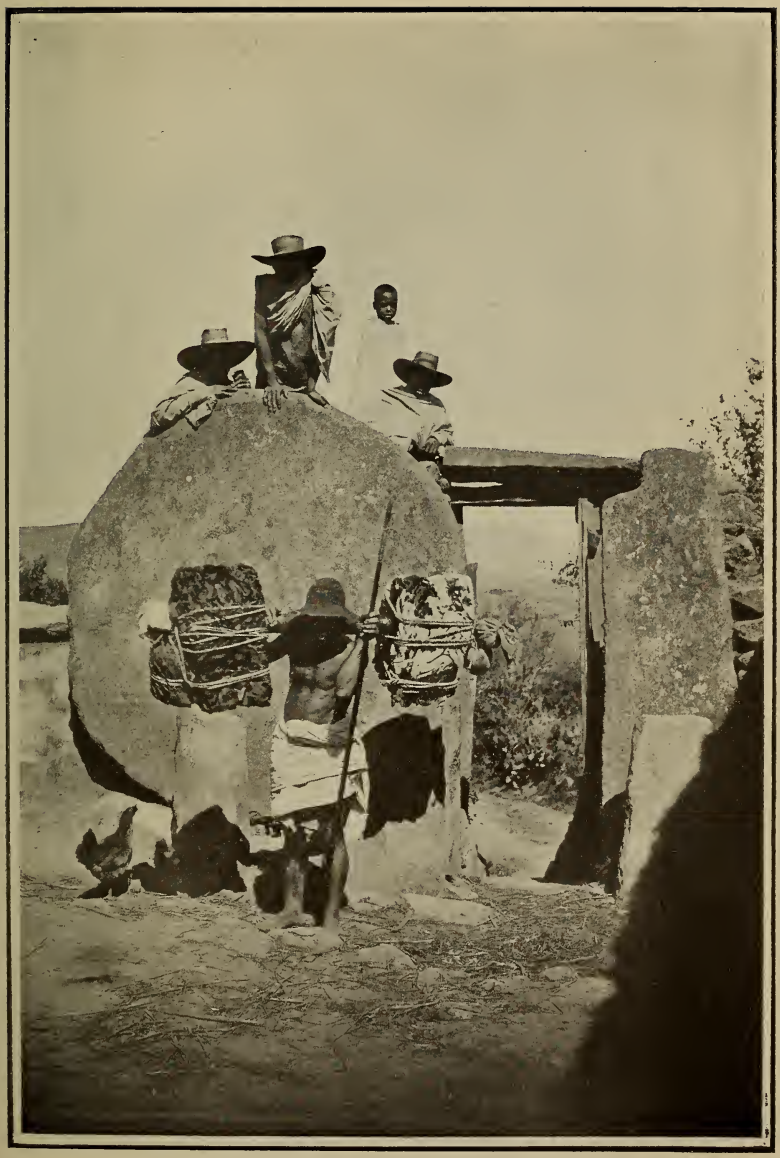
The scenery of this coast was of a very varied and beautiful nature ; islands stud the surface of the lakes, and there were thousands of a species of pandanus with large aerial roots. In the woods were the gum-copal tree and many kinds of palms, with slender graceful stems and crowns of feathery leaves. The climbing plants were abundant, forming ropes of various thicknesses, crossing from tree to tree, and binding all together in inextricable confusion, creeping on the ground, mounting to the tree-tops and sometimes hanging in coils like huge serpents. Great masses of hartstongue ferns were embedded in the forks of the branches, and wherever a tree trunk crossed the path it was covered with orchids. Among other trees was the celebrated tangéna, from which was obtained the poison used in Madagascar from a remote period as an ordeal. This is about the size of an ordinary apple tree, the leaves of which are peculiarly grouped together in clusters, somewhat like those of the horse-chestnut. The poison was procured from the kernel of the fruit, and until the reign of King Radàma II was used with fatal effect in the trial of accused persons, and caused the death of thousands of people.

There is a large variety of fish in the lagoons, one

species of which has a habit, when caught, of inflating itself to a great size; another has poisonous spines sticking up from its back; prawns are caught often a foot in length; one species of shrimp has one large claw, like the crab mentioned above. Off the coast are many species of sharks, among them the hammer-head, and a sawfish was caught measuring fourteen feet from the tip of the saw to the end of the tail.

There are many species of snakes in the island, but happily the bite of none of them is fatal. Madagascar is the home of the lemur and that peculiar animal, the aye-aye. The habits of the lemur are simple enough. They exhibit great vivacity, and are much given to leaping from one object to another, in which they are aided by the pad-like structure of the soles (or palms) of their four hands. They are very good-natured and tame and full of fun while still young, but become cross and vicious when old. The aye-aye, though apparently not scarce, is difficult to obtain, as it comes from its retreat only at night, besides which the people have a superstitious fear of it, so that even a large reward is often insufficient to induce them to attempt its capture.

It is included among the four-handed animals, but it is very unlike the monkeys, having a smaller brain and much less intelligence, and from its powerful teeth was at first thought to be a link between them and the rodentia, or gnawing animals. Its food consists of a wood-boring larva, which tunnels into the wood of certain trees. To obtain these the animal is furnished with most powerful chisel-shaped incisor teeth, with which it cuts away the outer bark. As, however, the grub retreats to the end of its hole, one of the fingers of the aye-aye's hands is slightly lengthened, but much diminished in thickness, and is furnished with a hook-like claw. This finger is used as a probe, inserted in the tunnel, and the dainty morsel drawn forth from its



OLD VILLAGE GATEWAY WITH CIRCULAR STONE

The stone is levered into position closing and opening. A deep fosse or ditch surrounding the village completes its fortification. The man in front is carrying two packages secured to a pole in the usual manner of the country.

hiding-place. Its eyes being very large it can see well in the night, and its widely expanded ears can catch the faint sound of the grub at work, and the thumbs of the feet, largely developed, enable the animal to take a firm hold of the tree while using its teeth.

The creature somewhat resembles a large cat in size, being about three feet in total length, of which its large bushy tail forms quite half. Its colour is dark brown, the throat being yellowish grey. The probe finger is used when the aye-aye drinks ; it is carried so rapidly from the water to the mouth that the liquid seems to pass in a continual stream. A remarkable fact about the structure of the lower jaw is that the two sides are joined together only by a strong ligament, and do not, as in other animals, form one connected circle of bone. The aye-aye constructs true nests, about two and a half feet in diameter, composed of rolled-up leaves of the traveller's tree, lined with twigs and dry leaves ; the opening of the nest is at the side. It is said to be very savage and strikes rapidly with its hands. This is one of the many instances which the animal life of Madagascar presents of isolation from other forms. It remains the only species of its genus, and like many of the peculiar birds of the island, is one of the many proofs that Madagascar has for long ages been separated from Africa ; so that while allied forms have become extinct on the continent, here, protected from the competition of stronger animals, many birds, mammals and insects have been preserved, and so this island is a kind of museum of ancient and elsewhere unknown forms of life.

As far as the large village of Andovoranto the path had followed the seashore southward, but now a start was made into the interior. The village, which is situated at the mouth of the River Iharoka, would be an important seaport were it not for the bar at the mouth of

the river. The change from tramping under the weight of heavy packages was a pleasant one to the porters rather than to Dr. Sibree, for in the exuberance of their spirits they raced every boat they overtook, and as the canoes were easily capsized, and the river was infested with crocodiles the passenger's anticipations were not very pleasurable. The Malagasy have a superstitious dread of these reptiles, and instead of killing them try to propitiate them with offerings.

As they paddled up the river the banks became lined with bamboo, sugar-cane, manioc, bananas, palms, pandanus and other trees, while the shallow water was covered with blue water-lilies and other flowering plants. The traveller's tree, with its graceful crown of broad green leaves which grow at the top of its trunk, resembling very closely those of the banana, became very plentiful. It is so called because if the base of the leaf-stalk be pierced a supply of cool water can always be obtained. The leaf being broad the moisture of the air is condensed and trickles down to the base where it joins the stem. The tree is useful in other ways, too, for the leaves are employed for thatching as well as for plates or dishes, the bark is beaten out and forms flooring, and the trunk supplies timber for the framework.

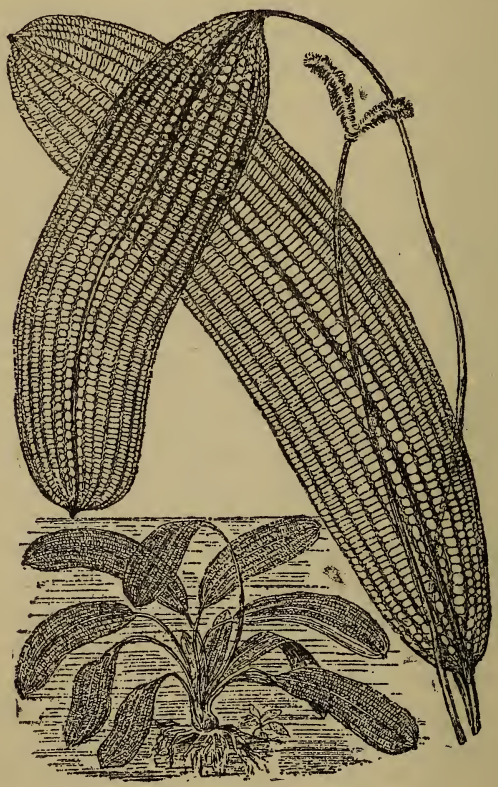
After leaving Maròmby, a village where they resumed their land journey, Dr. Sibree narrowly escaped disaster, for as he was crossing a stream on the shoulders of one of his porters the man suddenly sank waist deep in a thick, yellow mud, nearly pitching his burden into the water. But he managed to scramble from the shoulders of one porter to those of another, and so contrived to reach the bank. They then struck right into the hills, up and down, down and up, for nearly four hours. The road was a mere footpath, and sometimes not even that, but the bed of a torrent made by the heavy rains. It

wound sometimes round the hills and sometimes straight up them, and then down into the valleys, at inclinations difficult enough to get along without anything to carry, but with heavy loads requiring immense exertion. Dr. Sibree's palanquin described all sorts of angles ; sometimes he was resting nearly on his head, and presently almost on his feet. When winding round the hills they were constantly in places where a false step of the bearers might have sent them all tumbling down sixty or seventy, and sometimes a hundred feet into the valley below. A dozen times or so they had to cross streams foaming over rocks and stones, to scramble down to which, and out again, were feats requiring no ordinary dexterity. Some of these scenes were exceedingly beautiful and, with the rushing foaming waters, overhung with palms, ferns, plantains and bamboos made subjects in which a landscape artist would have delighted.

Near Ranomafàna, the next halting place, was a spring, the water of which was so hot that the hand could not bear it. Here Dr. Sibree secured several specimens of that curious production of nature, the lace plant. The leaves spring from a bulb somewhat resembling a potato, which can be eaten. In this village, granaries were erected on posts five or six feet above the level of the ground. Each of these posts had a round plate of wood at the top polished very smooth. This was done to protect the grain from rats which infest the locality. The ladder leading to the opening of the granaries was a very primitive contrivance, being merely a pole with notches cut in it.

The path now became much more difficult, the hills being higher and steeper, and it was marvellous how the men managed to carry their burdens without slipping. The palanquin bearers generally wore nothing but a loin-cloth, or a small sleeveless jacket, but in the cool mornings they threw over their shoulders a *lamba* of

rofia or hemp cloth. *Lamba* is the Malagasy word for cloth generally, but it is also applied specifically to the chief article of native dress. *Rofia* fibre is much used for tying up garden plants, and is known as "rofia



The Lace Plant

grass." This is incorrect, as it is the fibre of the leaf of the *rofia* palm. The bearers took the work in spells and the men would relieve each other, even when going at a trot, without slackening speed.

The next stage to the village of Béfòrona was more

difficult and trying than before; a small company of soldiers brought up in the early years of the century by Captain Le Sage laid themselves down in despair at the difficulties of the road they had to traverse. At this point Dr. Sibree's party had now entered some way into the lower and wider of the two belts of dense forest which extend for several hundred miles along the eastern side of Madagascar, and cover the mountains which form the great ramparts of the high land of the interior. There is a continuous forest from nearly the north of the island to almost the southern extremity; its greatest width is about fifty miles north of Antongil Bay; but to the south of Antsihànaka provinces it divides into two. On the western side of the island there is no such continuous line of forest; there are many extensive portions covered with wood, but in many places the vegetation consists more of scattered clumps of trees; while in the south-west, which is the driest part of the island, the prevailing trees and shrubs are euphorbias, and are spiny in character.

Béfòrona is situated in an almost circular valley; the houses, like most in this part of the country, are arranged in a square. The floors are generally raised a foot or two above the surface of the ground, and are formed of bark, beaten out flat and laid on bamboos, the framing and roof being made of poles or bamboos, filled in with the stalks of the traveller's tree, and thatched with leaves of the same tree. In the centre of these village squares was a flagstaff, and in others a pole with the skulls and horns of bullocks fixed to it. These are mostly memorials of the festivities connected with the last observance of the circumcision ceremonies, which are very important events with all the Malagasy tribes. Here the boys use an instrument called *tsìrika* with which they kill small birds. It consists of a long and straight palm stem taken from a small and beautiful

palm resembling a bamboo. A small arrow tipped with an iron point is inserted, and is discharged by blowing at the larger end, in the same way as the Indians of South America use the blow-pipe.

Resuming their journey the path became still more difficult; at one part of the road there is a long slope of clay known as the "weeping-place of the bullocks," so called from the labour and difficulty with which the poor animals mount the steep ascent on their way to the coast. Notwithstanding the fatigues of the journey it was impossible not to be struck with admiration and delight at the grandeur of the vegetation. The profusion and luxuriance of vegetable life were very extraordinary. The trees were distinguished not so much by their girth as by their height. It must, however, be borne in mind that masses of floral colour are not to be found in the tropics—for these one must go to the temperate zones; the tropics yield profusion and variety of foliage. Orchids, however, were very abundant; wherever a fallen tree hung across the path there they found a lodging-place, and beautified the decaying trunks with their exquisite waxy flowers of pink and white. One thing strikes the traveller in the forest primeval very forcibly—the absence to sight of animal life and the song of birds. There is, however, plenty of life, but it has to be looked for.

On the other hand, the zoological peculiarity of the island consists as much, or more, in what is wanting as in what is present; there is a strange absence of the larger species of mammalia. The large carnivora are all wanting; there are no lions, tigers, leopards, panthers or hyenas. The large thick-skinned animals, so plentiful in the rivers and forests of Africa, have no representatives in Madagascar; no elephant browses in the woods; no rhinoceros traverses the plains or hippopotamus lazily gambols in the streams, although there was a

small species of the last named pachyderm living during the last quaternary epoch. Fleet-footed animals—antelope, deer, gazelle, giraffe, zebra, and quagga—are entirely absent; and the ox, sheep, goat, horse, and ass, have all been introduced. The order of mammalia most developed here is the quadrumana (four-handed), but this again is represented by but a single division, the lemurs and their allies, which are the most characteristic animals of the island. There are no true monkeys, baboons or apes, gorillas or chimpanzees. The lemurs are very distinct from all these, and are pretty creatures, without the grotesqueness or ferocity of the allied species. They vary in size from that of a large monkey to a species not larger than a rat. They are mostly gentle in disposition, and some kinds are tame enough to be kept about the house as pets.

Among the bird population there are some eighteen species of herons and storks which are seen in the marshes and rice-fields. One of the most noticeable of these is the *tàkatra* or tufted umber, a long-legged stork with a large plume or crest. It builds an extraordinarily large nest, which is visible at a considerable distance, and might be taken at first sight for half a load of hay. It is usually placed in the fork of a large tree, and is composed of sticks and grass, plastered inside with a thick lining of mud. It is from four and a half to six feet in diameter, dome-shaped, with a lateral entrance, and is divided into three chambers, in one of which its two large eggs are laid. The entrance is by a narrow tunnel, and is always placed so as to be difficult of access, though the nest itself may be quite easy to approach. From this conspicuous nest, and the sedate way in which the *tàkatra* marches about seeking for its food, many native superstitions have gathered about the bird, one of which is that those who destroy its nest will become lepers. If the sovereign's path was crossed by a *tàkatra*, it was

considered unlucky to proceed, and the royal procession had to retrace its steps.

Evidences were not wanting at this point to show that Dr. Sibree had now penetrated the country of the Hovas, or ruling tribe, and that he was within measurable distance of the capital, and it was with a glad heart that one morning he took his seat in his palanquin with the knowledge that he had embarked on the last stage of a long journey, not unaccompanied by many and serious risks. As he approached the capital he was struck by the number of villages to be seen in every direction, many of them enclosed in high walls made of red clay, laid with care in regular courses, and apparently hard and durable. The houses were all built of the same material, and many of them were enclosed in circular and others in square courtyards with gateways. Many of the villages were surrounded with deep fosses, sometimes two and even three yards deep, generally filled with bananas, peach and other fruit trees; some had walls and stone gateways, giving one the impression that there must have formerly been much internal warfare to need such elaborate defences. This indeed was the case before Imèrina was governed by one sovereign about one hundred years ago. Within a mile or two of the city they passed for a quarter of an hour through a perfect cloud of locusts, which covered the ground and filled the air. At a distance these insects appeared like a low-lying cloud of dust, and when near and seen in certain directions, the sun shining on their wings gave them almost the appearance of a snow shower. Many varieties of locust are common in Madagascar, and occasionally they do great damage to the crops. The Malagasy, however, make use of them for food, and when a cloud of them appears, men, women, and children are all out catching them, and for a few days afterwards great brown heaps of them are to be seen at all the little

wayside shops. They are said to taste something like shrimps.

The capital was much larger than Dr. Sibree expected, and he could not help being struck by its size and fine situation. It is built on the summit and slopes of a lofty rocky hill some two miles long from north to south, which was covered with dark-looking houses. In the centre stood conspicuous the great bulk of the chief palace and its smaller neighbour, their arched verandahs and steep roofs, all painted white, and shining in the morning sun, towering over every other object.

CHAPTER XV

MADAGASCAR: NATURE'S MUSEUM

Below the capital stretches for many miles the great rice-plain of Bétsimitàtrata, the "granary of Antananarivo, through which the river Ikòpa winds northward. This plain was formerly an immense marsh, but since the river has been embanked it has become the finest rice-plain of the island. Sometimes during heavy rains the embankments give way and all the population is called out to help in stopping the breaches. The plain is irrigated by canals which draw their supply from the Ikòpa.

There are two hundred and ten species of birds at present known in Madagascar, which include forty-one genera and a hundred and twenty-four species which are all peculiar to the island. The rapacious birds comprise twenty-two species, the majority being hawks, kites and buzzards, with several owls and two eagles. The most common is the papàngo, or Egyptian kite, which feeds on lizards, snakes, mice, rats and small birds. Another widely spread rapacious bird is the hitsikilsika or kestrel, a vivacious, noisy little bird, by no means shy. Among some tribes this is a tabooed bird, and it is a crime to kill it. Vòromakèry, or "Powerful bird," is a falcon with extremely rapid flight, and, though small, is very courageous. Many of the Malagasy hawks are beautiful birds, with horizontal bars of alternate light and dark colour on breast and tail; but perhaps the most handsome of them all is the rayed gymnogene, which is of a pearly-grey colour, barred with black, while on the tail and quill feathers

are broad bands of pure white and intensely glossy black. The bird stands high, having very long legs, with a crest of feathers on the crown and neck.

During the summer, that is, from November to February, terrific thunderstorms occur, when the forked lightning plays incessantly, and crash follows crash without interval, the hills around echoing back the roar. They are awfully grand but attended by a considerable element of danger. The attendant rain is exceedingly heavy, and the steep streets of the town used to be transformed into rushing torrents and a series of cascades, tearing up the rough pavements and piling the stones together in a disorderly mass like the bed of a cataract. During these storms hailstones sometimes fall large enough to kill sheep and small animals. Very beautiful are the storms of lightning unaccompanied by thunder.

At certain seasons of the year some insects are found which produce a constant dropping of water. They appear to be small beetles, and gather in clusters of twenty or thirty. So great is the quantity of water extracted from the tree on which they gather that the ground beneath is saturated with moisture.

At the time of Dr. Sibree's residence in Madagascar the arrangements of a Hova house were very simple, and were almost always the same. The visitor called out before entering, "Haody, haody?" (May we come in?) After waiting a minute or so, during which the hostess was reaching down a clean mat for the visitor to sit on, she called out, "Màndrosòa Tòmpokaé" (Walk forward, sir). The visitor then stepped over the raised threshold into the room. In some parts of Imèrina a kind of closet, resembling more a large oven than anything else, was made of clay at the south-east corner, opposite the door, and here, as in an Irish cabin, the pig found a place at night, and above it the fowls roosted. Near the door the

large wooden mortar for pounding rice generally stood, and near it the pestle, a long round piece of wood, and the large shallow wooden dish in which the rice was winnowed from husk removed by pounding. At the middle of the eastern side were two or three globular water-pots, the mouths covered with a small basket to keep out the dust. On the west side was the hearth, a small enclosure about three feet square. In this were fixed five stones on which the rice cooking-pots were arranged over the fire. Over this there was sometimes a light framework upon which the cooking-pots were placed when not in use. There was no chimney, the smoke finding its way out as best it could ; consequently the house was generally black and sooty above, long strings of cobweb and soot hanging down from the roof. Such appendages were considered as marks of long residence and honour, and so the phrase " black from soot " was a very honourable appellation. The north-east corner of the house was the sacred portion of it, the corner where the war-chant was sung, and where any religious act connected with the former idolatry was performed, and in which the household charm was kept in a basket suspended from the wall. In this corner also was the fixed bedstead which, especially in royal households, was often raised some height above the ground and reached by a notched post serving as a ladder, and sometimes screened with mats or coarse cloth. West of this, close to the north roof-post, was the place of honour where guests were invited to sit down, a clean mat being spread as a seat, just as a chair is handed in European houses.

One cannot fail to notice a small longish lump of light-coloured clay stuck under the eaves of houses, or in fact in any sheltered place, and on breaking off a piece the lump of clay will be found to contain a number of cells, all filled with caterpillars or spiders in a numbed

and semi-lifeless condition. The maker of these cells is a black wasp about an inch long, with russet wings, and as one sits in the verandah of his house he may often hear a shrill buzz somewhere up in the rafters, and there the little worker is busy bringing in pellets of clay with which she builds up the walls of the cell. Kneading the earth with her mandibles on the banks of a stream she quickly forms it into a pellet about the size of a pea which she picks up and flies away back to the verandah. This pellet is placed on the layer already laid, carefully smoothed and " bonded in " with the previous structure, until a cell is completed. Spiders are caught by the wasp, stung so as to be insensible, but not killed, and then the egg is laid in their bodies, so that on being hatched the grub finds itself in the midst of food.

Another species of solitary wasp is a much larger insect, about two inches in length, and she makes nests which are extremely hard, and are like half-buried native water-pots with the mouths facing the observer and arranged regularly one above the other. When finished they are plastered over with rough gravel. Unlike the first insect she does not knead the material near a stream but carries water to the dry earth and shapes it into balls. These cells, too, are stocked with caterpillars. Another wasp does not build cells, but digs a burrow in the ground. All the wasps drag or carry their prey on foot. One small wasp first amputates the legs of any spider she may have captured, then slings it on her back. Some wasps seem to hunt by scent for long distances ; some dash down violently into the web of the spider, and catch him as he drops from it ; while others again seize their prey upon the wing, especially the social wasps. The males of all are lazy and do no work.

Rice culture occupies a large amount of the time and attention of the Malagasy. It is their staff of life and

they cannot understand how Europeans can make a meal without it. The ground is dug and prepared, the grain sown, the young seedlings transplanted to their permanent quarters in the soft mud of the rice-fields, then in January begins the harvest. The crop is cut with a straight-bladed knife, and the stalks are laid in long lines along the fields, the heads of one sheaf being covered over by the cut ends of the stalks of the next sheaf ; this is to prevent the ears from drying too quickly and the grain falling out before it reaches the threshing-floor, which is merely a space of hard earth. No flail is used, but handfuls of the rice-stalks are beaten on a stone fixed in the earth until the grain and straw are separated. The unhusked rice is then carried in baskets to the owner's compound and stored in large round pits with a circular opening dug in the hard red soil. Small animals and birds pick up a very good living at this time and some of the chief embankments swarm with rats and mice. Of the birds the most conspicuous are the cardinal-bird, the white egret, the white-necked crow and a beautiful kingfisher of lovely purplish-blue, with yellow and buff breast and belly. It flies in a curious jerking manner, like a flash of purple light.

There is a great variety of spiders in Madagascar, one of which, a large handsome insect, spins huge webs. Fairly successful attempts have been made to employ the silk in the manufacture of a woven fabric, but it is very doubtful if it could be procured in sufficient quantities to be of commercial value. Silk, however, from the silkworm is produced to a considerable extent. The moth is a large and beautiful insect, with shades of buff and brown and yellow, and with a large eye-like spot on the hind wings. Another moth has long tail-like appendages to its wings, enlarged at the ends. Their points have two spiral twists or folds, very graceful in appearance ; the wings are light buff with lemon-

yellow. It measures eight and a half inches from shoulder to point of tail, and eight inches across the upper wings. There is a very dark species of which the Malagasy are afraid, as they think that their presence in the house presages death. But the most beautiful of the Malagasy lepidoptera is a diurnal or day moth which most call a butterfly, a large and lovely insect, with golden-green, crimson and black markings, and edged all round its wings and tails with delicate pure white. It is a curious fact that the nearest ally to this species is a native of Hayti and Cuba. In some seasons it is abundant, but in others scarce.

On the open downs, when the sun is shining, the air is filled with the hum of chirping insect life from the many species of grasshoppers and small locusts which cover the ground. Every step among the long dry grass disturbs a score of these insects, which leap in all directions from one's path. The majority of these are of various shades of brown and green, and some of the larger species of grasshopper are remarkable for their protective colouring. The legs and wings of one are exactly like dry grass ; the body is like a broad blade of some green plant, the antennæ are two little tufts, like yellow grass, and the eyes are just like two small brown seeds. Other grasshoppers are entirely like green grass blades and stalks, and others again resemble, equally closely, dried grass. One is puzzled to guess where the vital organs can be placed in such dry-looking little sticks. There is one species of mantis, also, which turn round their heads and look at one in quite an uncanny manner, and their formidable serrated forelegs or arms, put up in mock pious fashion, give them a distinctly different appearance from the other insects.

But the most handsome insect on the downs is the dog-locust. It is large and gorgeously coloured, the body being barred with stripes of yellow and black,

while the head and thorax are green and blue and gold, with shades of crimson, and the wings are bright scarlet. Its protection is its most abominable smell, which safeguards it from its natural enemies and from the collector's cabinet. Immense earthworms may be seen on the downs, four or five times as big as those we are familiar with—in fact they resemble small serpents.

The French have effected many improvements in the methods of building, but a good number of the old style of village still remains. They mostly have deep fosses, cut in the hard red soil surrounding them, about twenty to thirty feet across, and as many feet deep, sometimes still deeper; and before guns and cannons were brought into the country they must have formed very effective defences against an enemy, especially as there is often a double or even treble series of them. The gateways, sometimes three deep, are formed of stone, often in large slabs, and instead of a gate a great circular stone, eight or ten feet in diameter, was rolled across the opening and was fitted into rough grooves on either side, and wedged up with other stones inside the gate. In the fosses, which are, of course, always damp, with good soil, ferns and wild plants grow luxuriantly; and the bottom forms a plantation in which peach, banana, guava and other fruit trees are cultivated, as well as coffee, arums, and a variety of vegetables. Tall trees frequently grow there, so that these fosses are often the prettiest feature of the village.

Seen from a distance, Malagasy villages often look very pretty and picturesque, but the enchantment which distance lends is utterly dispelled on closer acquaintance. They are really most insanitary and filthy.

When passing through the forest one cannot fail to notice here and there a long white bag of a silky-looking texture. On cutting this open it is found to contain a

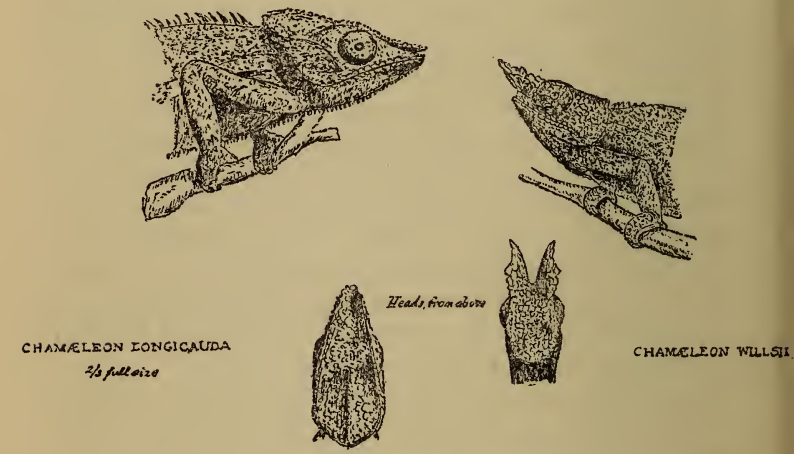
WATER-CARRIERS

The woman with a baby on her back has a full pitcher simply balanced on her head.

wriggling mass of caterpillars. Another noticeable nest is that of a small species of black ant. It is often as large as a football and is made of cow-dung or vegetable matter. It contains a series of thin floors separated by pillars. In these nests is found a number of small but handsome beetles ; but no one has been able to explain the object of their presence there. Another abode of the ant tribe takes the form of a large mound with a crater-like opening at the top. There are other species which do not construct habitations but live in the crevices of the bark of trees or in the stalks of plants. Butterflies are scarce in the woods, but caterpillars are numerous. Reptiles are not very conspicuous ; one seldom sees a snake, although probably the dense undergrowth affords them sufficient concealment, and although they are for the most part innocuous, and some of them very pretty, the natives appear to have a superstitious dread of them. Lizards are now and then seen of various sizes, some repulsive and others attractive, while some have the protective colouring developed to such perfection that it is difficult to distinguish them even when gazing at them at very short range.

Chameleons are very frequently met with, not only in the woods but also in the open country. Their colouring is often very beautiful, with its shades of green and yellow and black, brown and red markings, and the changes of colour according to the different surroundings are very rapid. The bright tints they exhibit in sunshine and on leaves become dull dark brown in the shade or on dark-coloured resting places. Sometimes they lose all colour, for Dr. Sibree one day saw, on the path near the woods, a chameleon in the coils of a small snake which had wound itself three times round the body, and the curious fact was that the chameleon was perfectly white. He unwound the snake and the chameleon soon resumed its ordinary colouring.

One species has a nose dilated and toothed on each side ; another has the top of the head conically produced ; while four species have two flat diverging nasal prominences covered with large horny plates ; and in yet another species the single long conical appendage to the nose is flexible. The largest Madagascar chameleon known is about a foot long, and is called *ramilaheloka*, which may be translated as "naughty old boy," probably from its uncanny appearance and earthy colour.



CHAMELEONS

In walking through the woods one constantly comes across traces of the wild boar, or more properly, the river-hog, although the animal itself is rarely seen. It is a somewhat ugly creature, with high withers, long back, and little hair. It has an enormous tubercle, supported by a bony protuberance in the jaw, which renders the face of the animal extremely disagreeable. It does much damage to the plantations, but provides excellent sport not unattended by danger, for it is armed with long and powerful tusks.

The traveller will perhaps encounter a sickly sweet smell which arises from the honey stored in a neighbouring hollow tree by wild bees. The honey is excellent, and is collected and sold by the woodmen. It differs very little from the domesticated bee with which we are familiar. Its greatest enemies are the death's-head moth, rats and mice, and a certain kind of wasp.

The human inhabitants of these forests are few and far between, and occupy themselves chiefly in cutting wood. There is one tribe, however, of an extremely retiring nature ; so shy are they that, it is said, they die of fright if captured. If all that is reported of them be true they must be of quite a different stock from the other inhabitants of the island.

Iron is very abundant in Madagascar, and foundries for smelting the ore are frequent. The " feather-bellows " used is a primitive affair. It consists of two cylinders, about five feet long, and six to eight inches wide, made from the trunks of trees hollowed out. These are made air-tight at the lower end and fixed in the earth in a vertical position, about two feet apart. In each cylinder a hole is made a few inches from the ground, and in these a bamboo cane or an old musket barrel is inserted, the other end being fixed into the stone or clay wall of the furnace. A piston with feather valves is fitted into each cylinder, and the shafts or piston-rods are worked up and down alternately by a man or boy. These foundries are always situated near a running stream of water, so that the ore may be washed and cleared as much as possible from earth and sand. The furnace itself is a hole about six feet in diameter, and one or two feet deep ; its walls are of rough stonework, built up three or four feet, and thickly plastered outside with clay. Charcoal is used for smelting, and notwithstanding these rude appliances and methods, the iron produced has been pronounced by competent judges

to be of excellent quality. Spade-blades, knives, nails, bolts, and many other articles are produced by the native smiths.

There are several spiders which must be included among the noxious insects. One of these is greatly dreaded by the natives, who believe that its bite is fatal if cauterisation or other remedy be not adopted immediately. The effects appear to be paroxysms of pain causing the patient to scream out. Many of the spiders are grotesque and weird in appearance. One is small and reddish in colour, and much broader than it is long, each side projecting into a long sharp spike—indeed it is spiky in several directions and is utterly unlike any other known spider. A traveller on the south-east coast speaks of the uncanny aspect of one of the villages in which he stayed ; it was like a town of wicked enchanters, for all the houses were festooned and closely linked together overhead by tangled masses of gigantic spiders' webs, amongst which lay in wait monstrous black spiders. Some of the coast villages, he says, were almost completely roofed in by these great webs.

Many of the stays of the larger spiders' webs stretch over spaces quite thirty feet wide, and the spaces between them are filled in with the webs of smaller species, which appear to be tolerated by their bigger neighbours. Some of the spiders show wonderful protective resemblance ; some resembling flowers, others the bark of trees. A venomous spider whose bite is often fatal, causing a swelling which extends over the whole body, is covered with tubercles, and its legs are roughened like those of a crustacean.

The woods contain at least fifty species of quadrupeds in addition to the lemurs, but as they are small, and many of them burrowing, they are not at all conspicuous. One group is similar in habit and appearance to the

European hedgehog, but it is not of the same family. Some have a covering of strong prickly spines, while in others it consists rather of prickly hairs. The natives cook and eat it, and it has rather the taste of pork, but is richer and greasier. The tail-less tenrec is the largest and best known of its family. It hibernates for six months of the year. Thirteen to twenty-five young ones are born at one time. They feed chiefly on earthworms, and also on roots, fruits and insects. The rice tenrec does immense damage to the rice crops by burrowing into the earth and rooting up the young plants. Another species has webbed toes and a thick and powerful tail, and is fitted for an aquatic life. The smallest species is only two inches long, and has a tail of three inches.

Of the lemurs there are no fewer than thirty-nine different species in Madagascar, of which ten are lemuroida, or lemur-like. There are three species of the latter, known as *simpona*. They are diurnal, and live in companies of from six to eight. Often they may be surprised at sunrise, squatting on the fork of a tree, their long legs bent under them, touching the chin, their hands resting on their knees, stretching out their arms and legs so as not to lose a single ray of the newly risen sun. Their food is entirely vegetable, and they are formed for a purely arboreal life, for there is a membrane along the arms and legs which acts to a certain extent as a parachute, so that they can make leaps of from twenty-five to thirty feet without apparent effort, and they seem to fly through the air. On the rare occasions when they leave the woods they advance by leaps, as if their feet were tied together, and have a most comical appearance as they go across a bit of open ground. One kind is silvery grey in colour, with black head and neck ; another is entirely white, except for its dark brown face ; and a third species is black or dark brown.

The true lemurs, being of a shy and retiring habit, are seldom seen, but Dr. Sibree had the good fortune once to see a pair of the kind called red lemur cross a path near his house. These were large and handsome animals, warm reddish brown in colour, and took astonishing leaps in a most graceful manner ; but they were out of sight in an instant, and collectors say that it is easier to shoot a flying bird than a lemur in motion.

In the small streams which occur at the bottom of many of the ravines, one often comes across the curious nests of the pensile weaver-bird, which are beautifully constructed, shaped like a chemical retort, and suspended from the extremities of the branches of trees, and usually over running water. They are about a foot long, the bulb giving ample room for the eggs or nestlings, and the tube forming the entrance from below is three to four inches in diameter. Nests of another species are globular. The Madagascar bee-eater is one of the most beautiful birds to be seen in the island, both from its elegance of form and its bright colouring of various shades of green. It has a very long curved beak and an extremely long tail with two long feathers extending beyond the others. The nests are excavated about a foot deep in a sandbank bordering streams. The couas, a genus of cuckoos peculiar to Madagascar, are another group conspicuous from their size and colouring. The blue coua is a handsome bird, and the crested coua is found all over the higher regions. One species is known as the " snail-breaker," as these molluscs form its principal food.

CHAPTER XVI

MADAGASCAR: NATURE'S MUSEUM

MENTION has already been made of the two belts of forest which lie along the east coast of the island. At about lat. 17° S. these two belts unite, and the open space south of the junction is inhabited by the Sihànaka tribe. This valley or plain is about thirty miles across; it is perfectly level, and the greater portion of it is marsh, and at the north-eastern corner of the marsh is a fine lake, Alaotra, connected with the sea by the river Maningòry. This tribe was independent until conquered by the Hovas. Dr. Sibree was invited to accompany a party who were setting out to explore this least-known part of the island. After a toilsome journey the vast plain of Antsihànaka was reached, and the first thing to attract Dr. Sibree's attention was the variety and beauty of the grasses, some kinds of which grow to a height of eight or ten feet, although this is not peculiar to this locality, as most of the grass in Madagascar grows to a great height if not burnt down. The town of Ambatondrazàka was reached, a place of about four hundred houses, and a pleasing contrast to the collections of wretched hovels, dignified by the name of village, through which the party had passed; the *làpa*, or government house, was situated in one corner of a large square or enclosure. It was a two-storied building surrounded by verandahs, whither Dr. Sibree and his party repaired to pay a ceremonial visit to the Governor, who received them with much courtesy and formality.

Time was devoted to exploring the neighbourhood, which appeared to be extremely fertile and very rich

in cattle. Every village of the Sihànaka has near its entrance a group of two or three tall straight trunks of trees fixed in the ground, varying from thirty to fifty feet in height; the tops of these have the appearance of an enormous pair of horns, for the fork of a tree is fixed to the pole, and each branch is sharpened to a fine point. Besides these, there are generally half a dozen lower poles, on which are fixed a number of the skulls and horns of bullocks killed at the funeral of the people of whom these poles are the memorials. Several of the higher poles, Dr. Sibree noticed, had small tin trunks, generally painted oak colour, impaled on one point of the fork; and in several instances baskets and mats were also placed on a railing of wood close to the poles. These articles were the property of the deceased, and may have been so placed to be of use to his spirit, or from an idea of pollution caused by death. The horn is a symbol of power and protection, and the army was termed "the horns of the kingdom."

Cattle rearing was carried on extensively, and references to the bull as an emblem of strength were frequent in public speeches. Bull-fighting was a favourite amusement with the sovereigns, and anciently the killing of an ox was regarded as a semi-religious observance, and only the chief of a tribe was allowed to do this, as priest of his people.

About the lake wild fowl are both numerous and varied, and the keeping of ducks and geese is an important occupation of the Sihànaka. Geese are greatly valued, and alive or killed are always presented as a mark of esteem to strangers. Guinea-fowls are also plentiful, generally in flocks of twenty to thirty.

There used to be a curious custom formerly practised by the Sihànaka at the time of the circumcision. They used to choose one of the largest oxen to be found and sharpen his horns to a fine point; after two or three

days' continuous drinking, when they had got perfectly maddened with spirits and were ready for any foolhardy adventure, a party would rush out to attack this ox, but without any weapons. As the animal became infuriated, he, of course, defended himself by goring his enemies, many of whom he generally seriously hurt, and occasionally killed some outright, while the man who escaped without injury was considered as born under a lucky star, and was resorted to by numbers of people to give them charms to protect them from various kinds of calamity.

The occupations of the Sihànaka are chiefly tending cattle, growing rice, fishing and making *tòaka* (rum). Almost every family, however poor, possesses a herd of cattle, and the day of cutting the ears of the young animals (to distinguish them from those of the Sovereign) is always a day of rejoicing or feeding. Very few milk their cattle, for they prefer a broth made from fish. When cultivating the ground for planting rice they do not dig it but make a number of low earthen banks for the purpose of retaining the water ; oxen are driven into the intervening spaces, and when they have been churned into mud the rice is sown broadcast without subsequent transplanting. When the matured crop is reaped it is heaped into stacks of considerable size, and when dry threshed out by men with sticks. The grain is not stored in pits but in an enormous kind of basket or round enclosure, made of papyrus plaited together from twenty to thirty feet in diameter. These are in the fields and roofed over. Rice being so plentiful, it is not measured but is reckoned by the number of these *volorày*, of which the richer Sihànaka have seven or eight or more.

Fishing is extensively carried on by both men and women, the men angling for eels, the women dredging for small fish with a kind of basket or sieve. The fish

are dried in the sun and sold in large quantities in the markets. Until a few years ago very little coin was used, all sales being done by barter. There is a great deal of rum made in this locality and its manufacture is the work of poor old men and women, and formerly of slaves. In every house it is to be found, for they think it shows a want of respect to visitors if they have not plenty of *tòaka* to give them.

Travelling in this part of the country was not at all pleasant; it consisted of wading through water or floundering through bog. They reached the town of Ambòhitsàra, situated quite in the swamp, raised only a few inches above the level, and surrounded by water, most of it stagnant. The natives were anxious for them to spend the night there, but as they did not consider the attractions great enough they determined to cross the Lake Alaotra the same day. This lake is the largest in Madagascar, and is about twenty-five miles long by four or five in average breadth. They reached the shore and waited for canoes but none appeared, and at last, tired of waiting, they retraced their steps to the village. They were courteously received, but Dr. Sibree confesses that these courtesies were somewhat ungraciously accepted, for he saw that the natives had determined that the party should partake of their hospitality and had adopted an effective policy of passive resistance to attain their end.

However, the night was not uncomfortably passed, and next day they crossed the lake in a dozen large canoes, thirty or forty feet long and three or four feet wide, hollowed out of a single tree. Crocodiles are numerous in this lake and are of a different species from that inhabiting all other rivers in Madagascar, and are identical with fossil remains of those existing in prehistoric times. Tortoises are also plentiful, and there is a great variety of vegetable life. They reached the

village of Màrosalàzana where formerly no person washed his clothes. These consisted of dark blue cotton smeared with castor oil, and as they considered that washing would spoil them, they remained unwashed. The young men in the evenings used to form into two parties, and had violent boxing matches, in which the women joined. The name of the village signifies " many poles," and Dr. Sibree saw a group of more than twenty poles holding ox skulls and horns.

South of the lake in a place called Anoròro lives a strange tribe of people who seem quite isolated, not only in their dwelling-place, but also in their barbarous habits, from the other Sihànaka, and who speak a distinctly different dialect. In the rainy season, when the water rises, it enters into the houses of these people ; they then form a raft of reeds, so that as the water rises, this raft rises with it. On this raft they make their hearths and beds, and there they live, rising and falling with the water until the dry weather lands them on earth again.

Madagascar seems to be nature's museum of the fossilized remains of extinct animals. During recent excavations the skeletons of several examples of an extinct species of hippopotamus were discovered, the crania and tusks being in very perfect preservation. Until 1861 the antipathy of the natives against foreigners prevented all scientific investigation, but since that time further researches and excavations in different localities have brought to light the bones and remains of shells of huge birds. They were evidently flightless, and were allied to the ostrich and the recently extinct *dinornis* of New Zealand. The generic name of æpyornis was given to these birds, of which several species have been discovered, ranging in size from that of a bustard to a bird exceeding an ostrich in height, and also in the massive character of the skeleton. The largest

specimen found *æpyornis ingens* stood about ten feet in height. The egg of one of the species is the largest of all known eggs, being twelve inches and a quarter long by nine inches and three-eighths. It thus had a capacity equal to one hundred and forty-eight of those of the domestic fowl. From the marks of cuttings on the bones, by means of some sharp instrument, it seems probable that these huge birds were co-existent with man on the island, and were probably hunted off the face of the earth. Fossil gigantic tortoises and many other animals have also been discovered.

It seems probable that Madagascar, when the first representatives of mankind visited it, was a country much more covered by lakes and marshes, and also by forest, than it is at present. In these waters, amid vast cane-brakes and swamps of papyrus and sedge, wallowed and snorted herds of hippopotami; huge tortoises crawled on the low lands on their margins; tall ostrich-like birds, some over ten feet high, and others no larger than bustards, stalked over the marshy valleys; great rails hooted and croaked among the reeds, and clouds of large geese and other water-fowl flew screaming over the lakes; on the sandbanks crocodiles lay by scores basking in the sun; great ape-like lemurs climbed the trees and caught the birds; troops of river-hogs swam the streams and dug up roots among the woods; and herds of slender-legged zebu-oxen grazed on the open downs. These were the animals which the first wild men hunted with their palm-bark spears, and shot with their arrows tipped with burnt clay or stone. Further back, when Madagascar was probably not an island but a peninsula of Africa, one may dimly see vast reptile forms; great slender-snouted gavials in the streams and lakes, giant sloths moving slowly along the branches of the trees, and huge dinosaurs, sixty to eighty feet long, crawling over the wooded plains and tearing down

whole trees with their powerful arms. Such is the picture of the life of Madagascar that science portrays for us.

A journey southward to Betsiléo was Dr. Sibree's next expedition. After the usual difficulties with the carriers the party started and in due course reached the Betsiléo province. The characteristics of the land between Antananarivo and Fianàrantsòa were the elevated tract of bare tableland, more than six thousand feet above the sea; the cultivated valleys of the three or four chief rivers; the green pleasant basins of Ambòsita and Ambohinamboàrina; the enormous rocks of Angàvo and the belt of grey-lichened forest of Nandihìzana. Three points, however, struck Dr. Sibree most forcibly in the province of Betsiléo as being different from what he saw in Imérina: the bolder and grander scenery, and the stupendous masses of stone. Then there was the elaborate system of rice cultivation which appeared to be carried to the highest point of perfection in the wide valley south of Ambòsitra. Not only are the valleys and hollows terraced—the *concave* portions of the low hills, and lower slopes of the high hills—but the *convex* portions also are stepped up like a gigantic staircase for a great height, and how the water was conveyed to the higher levels Dr. Sibree could not discover, for many of these were terraced up to their highest point, the narrow lines of rice plot running round them in concentric circles, so that there was not a square yard of ground left unproductive. The third point was the elaborate carving on the tombs and houses. The upright stones placed near graves were not the rough undressed slabs common in Imérina, but were finely dressed and squared, and ornamented with carving.

One of the bridges was most awkward to cross. The native engineer had made it in two spans, not, however, in a straight line, but forming almost a right angle with the other. It was constructed of massive balks of

timber, but as these were not on a level, and some had slipped down three or four feet, the passage over was neither easy nor pleasant. Many of the bearers hesitated a good deal, as the bridge was sixteen to eighteen feet above the water which roared like a mill-race beneath.

All about this neighbourhood were great numbers of ant-hills of a much larger size than usual. They are conical round mounds of a yard or so high, and are made by a white or yellowish ant. The queen is nearly an inch long, while her subjects are not half that size. A serpent is said to live in many of these nests, which is fattened up and eventually killed and eaten.

There is a curious custom here, as in some other parts of the island, called *fàto-drà*, i.e. "bound by blood," by which persons of different tribes or nationalities become bound to one another in the closest possible fashion. The ceremony consists in taking a small quantity of blood from the breast or side of each contracting party; this is mixed with other ingredients, stirred up with a spear-point, and than a little of the strange mixture is swallowed by each of them. Imprecations are uttered against those who shall be guilty of violating the solemn engagement thus entered into. Several Europeans whose interest it was to be on the best of terms with the natives, have made this covenant. Sometimes the blood is taken from an ox. In this case a pinch of salt, a little soot, a leaden ball, and a gold bead were put into the blood, which was mixed with water. Sometimes pulverised flint, earth and gunpowder are added to the mixture.

To the village of Irohitròsa the path led through dense forest, entangled with luxuriant tropical vegetation, rendering the journey most arduous. Deep streams had to be crossed by no other means than that of a single round pole, a foot or two under water, and fallen trees had to be climbed over or crept under, wet through

with the dripping leaves on either hand and the mud and water underfoot.

After the usual trouble with the bearers, who were afraid of a new and hitherto untried route, a start was made for the coast. The Matitànana, a fine, rapid and deep river, was reached. No canoes were available, so a bamboo raft, called a *zahitra*, was requisitioned. As a means of transport it is execrable. It consists of bamboos lashed together by bands of some tough creeper ; the bamboos continually slip out of place, and need trimming at every trip, and when loaded will carry only two men and two boxes, and even then it floats partly under water ; a split bamboo supplied the place of a paddle. All crossed safely but very wet.

Money seems of very little use to these Tanàla people ; beads are freely used as decorations by both sexes ; and their religion seems to consist chiefly of charms—charms against any and every kind of evil. Many of the men carry shields, which are made of a circular piece of wood covered with undressed bullock's hide ; a handle is cut in the wood at the back. The women carry a heavy knife or chopper in their belts, used for cutting up manioc or other roots.

For the first time on this journey crocodiles were seen. They were basking in the sunshine, perfectly motionless ; very unpleasant-looking creatures, with serrated back and tail, and always attended by several large wading-birds, some white and others dark brown. These birds appear to perform some service for the reptiles, probably by picking off parasites. Near all villages of this part small spaces in the river were enclosed with stakes, so that the women and children coming to draw water could do so without fear of being seized by a crocodile, or swept off into the stream by his tail.

Mention has been made of the poison ordeal. But

among the Tanàla tribes an ordeal of another kind was commonly employed to find out a guilty person, for the suspected one was taken to the bank of the Matitànana, or one of its tributaries, where crocodiles abound. The people having assembled, a man stood near the accused, and striking the water thrice addressed a long speech to the reptiles, adjuring them to punish the guilty, but to spare the innocent. The accused was then made to swim across the river and back again, and if he successfully accomplished this, he was considered innocent, and his accuser was fined four oxen.

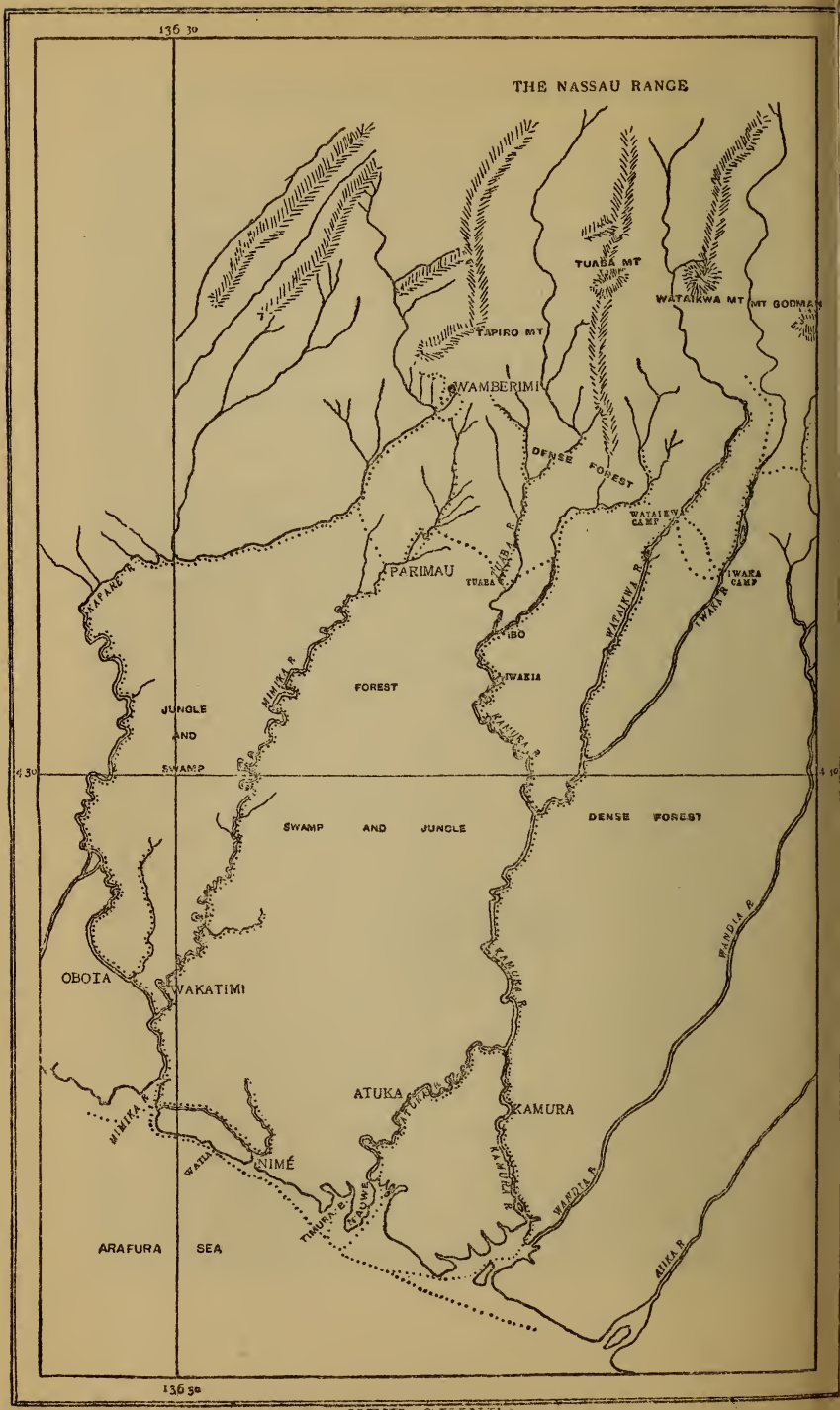
At the village of Vangàindràno a large Hova post, Dr. Sibree received a shock. Hitherto he had met with unvarying courtesy, but here all were made prisoners for two days. The Governor said he was acting under orders from Headquarters, and that they would not be allowed to proceed southward. If they were in truth his orders he carried them out in a harsh and arbitrary fashion. The reception at the next military post was quite the contrary. The party were met at the gate of the stockade by the Governor and a company of soldiers, and were escorted with all ceremony into the place in a pelting shower of rain. Next day a formal dinner was given, and Dr. Sibree describes it as the noisiest entertainment he ever attended, for everyone shouted from the Governor downwards. The menu may be interesting : it consisted of curry, goose, roast pork, pigeons and water-fowl, chicken cutlets and poached eggs, beef sausages, boiled tongue, sardines, pig's trotters, fried bananas, pancakes, manioc, dried bananas, and last, when the dinner appeared to be finished, haunches of roast beef ! Coffee wound up the feast. Then followed speeches and toasts with musical honours, in which the big drum took no small share. The old Governor was the soul of hospitality, for he insisted on filling the glasses so often, especially his own, that he

became somewhat incoherent, and Dr. Sibree was glad to find an opportunity for retiring, but not alone, for he was escorted to his own building by the whole party, followed by the big drum ! The leave-taking on the morrow was equally ceremonious ; toasts were drunk with musical honours, and the jovial old gentleman and his wives accompanied the party for an hour on their journey, followed, of course, by the band and the big drum. A halt was made at the rapid stream Mànant-sìmba, where more toasts were drunk, and both parties took leave with mutual good feeling.

After an arduous journey to the coast the route turned northward, and although each stage was full of interest, no incident of great moment occurred, and after an itinerary lasting eleven weeks, Dr. Sibree and his party reached Antananarivo safely, having travelled by palanquin, on foot, and in canoes, more than nine hundred miles, and crossed rivers thirty times on the journey.

Madagascar Spider

[The information contained in these chapters has been derived from Dr. James Sibree's book, *A Naturalist in Madagascar*, by kind permission of the author.]



NEW GUINEA
DUTCH SECTION

CHAPTER XVII

A LAND OF PERPETUAL RAIN

New Guinea has been the object of numerous expeditions of research, but as a whole still offers greater opportunities for the explorer, collector and anthropologist than any other portion of the globe, and yet many years must elapse before sufficient knowledge of the country can be accumulated even to construct a sketch-map of its entire surface, to say nothing of a complete scientific examination of its mammals, birds, reptiles, insects and plants, or a study of the many savage tribes which inhabit the highlands and the plains. The chief reasons for this are its remote situation from the civilised world, its impenetrable forests, its rugged ranges and endless swamps, its rains and fevers, and lastly its hostile and treacherous inhabitants.

It can be easily understood, therefore, why this country was selected as a virgin land in which to work when the British Ornithologists' Union desired to commemorate their jubilee by sending an expedition into a country hitherto unexplored. The object was to explore that unknown country to the east of Fak-Fak, and to the west of Lorentz's Nord River. Little or nothing was known of this great tract of country; it had remained a land of mystery, impenetrable as when Carstensz had first seen it three hundred years before.

Without entering into the particulars of the preparations for the expedition it is sufficient to mention that of the European members Mr. Walter Goodfellow was selected as leader, and Captain Rawling (the late

Brigadier-General Rawling), to whom we are indebted for these particulars, assisted by Dr. E. Marshall, were appointed surveyors and cartographers. Through Sir E. Grey permission had been obtained from the Dutch Government for the expedition to land on the south coast of Dutch New Guinea any date after January 1st, 1910. This section had been chosen because its geography, fauna and flora were comparatively unknown. A company of Gurkhas and an escort of forty Javanese troops were to accompany the expedition for purposes of protection, while sixty convicts were to act as carriers.

The *Nias*, laden to her Plimsoll line with stores and passengers, left Soerabaia, the western port of Java, for the mouth of the Mimika river, but so confused and confusing is the coast of New Guinea that she overshot the mark, and the aid of a native, who turned out to be the chief of the village of Nimé, was invoked, and anchor was dropped two miles from the mouth of the river. Next morning search was made for a suitable site for a camp. Mangrove trees covered the banks, their bare roots projecting in a tangled mass from a sea of slimy mud, over which no man could move. This growth gradually gave place to vegetation requiring more solid foundation, beneath which scrub jungle appeared, becoming more and more dense the further they advanced. Up beautiful stretches of the gently winding river they passed with dank and gloomy creeks opening out on either hand. Slimy, evil-smelling mud covered the land, evidence of the inundation which took place at every tide; everywhere roamed countless numbers of crabs, large and small, together with a species of climbing fish which, with swift strokes of its tail and fins, sought cover amidst the roots, or, if on a branch, flopped noisily into the water. Overhead passed white cockatoos screaming with fear, their yellow crests distended; egrets, tree-ducks, pigeons, flocks of beautiful

but noisy parrots and lories, and innumerable other varieties of bird life. On the bank basked an alligator, whilst water-snakes, making for the nearest cover, now and again rippled the glassy surface of the water. This highway of the island teemed with animal life, startled into activity by the unwonted apparition of a steam-launch.

Three miles from the mouth the river divided into the Mimika, flowing from the north, and the Watuka from the west. At this point the Mimika had shrunk to about one hundred yards in breadth, the banks slimy with mud and covered to the water's edge with a tangled mass of creepers and cacti. Not a soul was to be seen; the river seemed as deserted as the grave. This was due either to fear, or more probably had been arranged by the savages in order to afford a more striking welcome, for, as the launch suddenly rounded a bend in the river, a wild yell from the banks burst upon the ear, immediately followed by the appearance of a dozen well-filled canoes. Without awaiting a closer approach every man cast himself backward into the river, only to scramble on board again and repeat the performance. Escorted by the canoes the launch turned into a straight stretch of water at the far end of which the coco-nut palms of a village could be distinguished, the rising smoke showing where the huts lay. This was Wakatimi, near which place Goodfellow had hoped to find a convenient place for the base camp.

The excitement was intense. Men, women and children poured down to the banks of the river; the women cast themselves into the mud, rolling over and over, and plastering themselves from head to foot, while the men and boys preferred the cleaner operation of throwing themselves backwards into the water. The women, now hardly to be recognised as human beings, but delirious with joy and excitement, started an inartistic dance,

going down on hands and feet and wriggling their bodies from side to side. But directly the white men set foot on land, all dived like a lot of rabbits into their huts, showing nothing but frizzy heads and gleaming eyes.

The village consisted of two long rows of huts, unlike those in other parts of New Guinea, not erected on piles, and having no partitions, so that they were really communal dwellings, the only mark of privacy being that each family possessed its own doorway. There was no furniture except an occasional wood pillow, which from its uncomfortable appearance might be safely calculated to banish sleep. Each family had its own hearth, and the place was full of smoke. The floor was littered with babies, dogs, dishes, bags, bows and arrows, etc., while stacked up near the door were spears and stone axes within handy reach should occasion require.

Opposite the village, and unaffected by it, a likely site presented itself; it was a peninsula formed by a fold in the river; it was within easy reach, by launch, of relief ships, and possessed possibilities for effective sanitation. Here Goodfellow decided to build a base camp. Cramer, the member of the expedition to whose lot fell the erecting of the building, had an unpleasant task, for time after time his railings were borne to the ground by the natives, not through mischief or malice, but simply out of a pure desire to see all that was going on. Later on, however, when the novelty had worn off, sulkiness and insolence took the place of curiosity, but after a few examples had been made of the offenders, matters improved.

The inhabitants of the Mimika district occupy four zones, viz., the coast tribes; north of this is a sparsely tenanted strip of country; then north of this are the up-river natives; and still further north, occupying

the lower foothills of the main central range of mountains, dwell the small men, or pygmies, called by the plainsmen Tapiros. For some reason there is constant enmity between the coast and up-river tribes, though they are of the same stock and live on the same river. The coast tribes are well developed both in stature and girth, which is extraordinary when one takes into consideration their natural surroundings and slothful life. They are almost coal black, but albinos are sometimes met with, and very repulsive they are in appearance. The hair of the Papuan, if left to itself, grows into a tremendous mop, but it is cut short and on gala days decorated with the feathers of the bird of paradise. The women adorn themselves very little, and with the exception of a few beads, wear nothing but a loin-cloth, made from the bark of a tree, and beaten until quite pliable.

These savages rush to arms on the slightest provocation ; in a minute a village may be in a violent uproar, with spears whizzing through the air and stone axes whirling madly about. The cause of this is generally beer-drinking. The headman of Wakatimi, a pleasant enough creature when sober, invariably wanted to fight when under the influence of drink, and usually chose his wife as the object upon which to work off his feelings. Returning one day from a carouse, he seized his bow and arrows and used his wife as a target. But the trees of the village were in the way, so taking to his canoe, he pushed off into the open stream and started his practice afresh. But the lurching of the canoe and his muddled brain made his shooting poor, and his wife stood on the bank, and dared him to do his worst. Having made a fine show and exhausted his arrows he returned to the shore. Now was the wife's turn. She tore the bow from his hand and broke it to splinters over his head and shoulders, then bore him off to their hut, a beaten and

cowed man, using a wealth of vituperation that would have excited the admiration of Billingsgate.

Children are kindly treated, but the lot of the wife is hard. Little ground is cultivated, but nature has been lavish with the sago-palm ; the jungle and river produce most of the food. Meat is much appreciated and eagerly sought after, pig being considered the daintiest morsel, then wallaby, cus-cus, and cassowary. Other articles of food are small alligators, tortoises, iguanas, snakes, prawns, and the white grubs found in the decaying trunks of the sago-palms. When a dead palm floating down the river is hauled on shore all the inhabitants crowd to the feast, and the sight of wriggling grubs, the size of one's little finger, being popped into eager mouths, is not very edifying. So rich is the soil that the labour required is not to raise the crop but to keep down the weeds. But such labour is not expended, for the native is too indolent.

Cannibalism is common in many parts of the island, though it does not seem to be practised by the Mimika Papuans. A story is told, and seems to be confirmed, of three hundred shipwrecked Chinese who were marooned on an island and fattened for the table. They were taken off two or three at a time and boiled in a hot spring. When the natives were tired of Chinese flesh, they hawked the remainder round the coast. Another story is told of a woman who dug up her recently deceased husband to feed a friend. This act caused much indignation at the time, not so much because it was considered wrong to eat the flesh when exhumed, but because the men of the tribe disliked the idea of being devoured by their own wives.

For the purpose of exploring the upper reaches of the river a fleet of ten canoes was obtained by barter before the end of the first week. Each canoe, hollowed out from a single tree trunk, is from fifty to sixty feet

long. Suitable trees are only to be found in the recesses of the forest; and when one considers that the only instrument used in felling and shaping the tree is a very inadequate stone axe, the labour must be enormous. The finer work is done with the sharp edge of a shell or a piece of iron, probably obtained from the coast. At first canoes were cheap, but as the demand was continuous prices rose until Wakatimi was sold out, and outlying regions entered the market. The price at first was a knife and a handkerchief for each canoe, but later on the offer of two axes was rejected.

The first expedition was hardly a success, as it lasted only two days and extended only six miles up river. Beyond this point the native paddlers absolutely refused to go, in spite of liberal offers of payment. Meantime a consignment of one hundred coolies had arrived from Amboina, one of the smaller islands of the Moluccas, and a miserable crew they were. All the maimed, halt, and blind seemed to have been selected for an expedition demanding physical fitness in a high degree. They were clad in black frock-coats, bowler hats, and brilliantly coloured sarongs (a loose skirt). They were lined up, examined, and half of them immediately shipped back home. After a time these coolies, who at first evinced a rooted dislike to the dug-outs, became quite proficient paddlers.

The Mimika is a deceptive river; it is merely a tributary of the Watuka, and the size of its mouth gives an appearance of importance which has deceived many travellers. It doubles on itself in an exasperating fashion, and the flow of water is most irregular—one day a swirling torrent, the next a mere trickle. In the first case poling is impossible and paddling almost so; in the second, the canoe has to be hauled along by sheer strength, over mud and gravel, over or under trunks of trees and masses of tangled foliage. During an

inundation all the surrounding country is under water, nor does a yard of land show itself on which to camp.

Upon the dank and mud-covered banks flourishes the most dense and luxuriant vegetation imaginable, containing specimens of almost every tree and shrub to be found in the tropics, all bound into a tangled impenetrable mass by innumerable rattans and creepers. The effect of this sombre bank of dark green, relieved only occasionally by a blaze of some brilliant flower, is anything but an inducement to the traveller to explore the swampy land below and beyond. Alligators are to be seen, and some of them attain to a great size, but they do not appear to be aggressive; even children bathers have no fear of them. Iguanas, large and hideous, dart from cover to cover; turtles flop lazily from the mud into the water, while, further on, is seen a poisonous water-snake wriggling its way along the surface of the stream to the safe shade of the bank. Although the temptation to strike these reptiles with a paddle is great, it is well to leave them alone when they are swimming, for when struck they make straight for the canoe, and with a particularly rapid rush try to clamber up the sides.

Crown pigeons (goura) may be seen in pairs, beautiful birds, and excellent eating; kingfishers flash past, and noisy hornbills balance themselves overhead. During the mating season it is the habit of the male bird to close up the opening of the nest with mud, leaving only a small aperture through which he passes food to his mate who is sitting on her eggs. The whirring clouds of lories and chattering parrots, the shrill cries of the gorgeous birds of paradise, and the twitterings of endless other species of birds, lend a charm to water travel which would otherwise be insupportable in its monotony.

Pig, brown and black, are to be found in a wild state throughout the country, and the ostrich-like cassowary.

Sometimes a tree will be seen laden with flying foxes, hanging head downwards, and the females with their young fixed firmly to their breast; horrid, unnatural-looking creatures, with their slow, heavy flight, claws, and beady eyes. Then there is the wallaby, a small prototype of the kangaroo, and the vicious cus-cus, with jaws like steel and claws like fish-hooks.

Mosquitoes hang in clouds over the dark and stagnant pools, but it is some relief to know that the anopheles, or carrier of the malarial germ, is in the minority, otherwise life would be insupportable. Leeches dangle from every leaf and branch. So insidious is the attack of these hateful creatures, that it is only a stream of blood welling through the clothing which warns the traveller of the presence of this pest. The bites often degenerate into bad sores if not attended to at once.

Worst of all these insect plagues, however, are loathsome bluebottles which exist in millions, defiling any food which may be exposed. Ticks are plentiful, but a particularly obnoxious creature is a small caterpillar which drops on one and exudes a pungent odour of formalin. Large and voracious crickets abound, also minute bees which crawl in myriads over one's skin when heated after exercise.

Snakes are unpleasantly numerous, some of them deadly; there are also pythons, but these do not reach the size of those of Borneo. The natives show extraordinary fearlessness in catching the poisonous specimens, grasping them behind the head before they have time to strike, severing the head from the body with a split piece of cane, and popping the body into their bags for the evening meal.

At one place a surprise awaited the canoe party, for a canoe full of men suddenly rounded a bend of the river; the men leaped out on the bank, and a band of women, whose sole coverings were girdles of leaves, burst

into view from the forest and raced towards them over the mud flat, uttering weird and discordant cries. Choosing the muddiest spot, they flung themselves headlong into the filth, and, still yelling, rolled over and over smearing face and hair with slime. Then they fell a-dancing, but just as they were reaching the highest pitch of excitement a signal from the men brought them to a dead stop. Complete silence ensued, and then all, men and women, standing quite still, placed their hands over their eyes and burst into tears. One moment there would be a succession of gasping sobs, to be followed by a series of ear-piercing shrieks, the bodily and mental exertion being so great as to cause the tears to pour down their cheeks, and great beads of perspiration to stand out on their bodies. Amazed at such heart-rending grief the Europeans endeavoured to allay their anguish; but they might as well have tried to soothe a whirlwind, for their grief seemed to gain vigour. Then suddenly the demonstration ceased; without a word of explanation, without even troubling to wipe the tears from their cheeks, they seized their poles and started their canoe afresh, as peaceful and unconcerned as if what they had just been doing was the most natural and ordinary thing possible. The women washed themselves, replaced the leaves by girdles of bark cloth, and once more became rational beings.*

Parimau, a village of some twenty-five huts, used to be the most important place on the upper reaches of the Mimika, but an inundation swept away not only the village but also the land on which it stood. Here a temporary camp was made and substantial huts erected. Numerous visitors arrived from neighbouring villages to see the European curiosities, and were hospitably received by their native hosts. But soon the village

* Weeping, as a form of welcome, is practised in other parts of the world.

became congested and brawls arose, and blood was freely shed. The usual weapon was the stone club, made out of coral, or limestone rock, and with these the most violent blows were given and received, though every care was taken not to strike the head. During these brawls a most appalling din was kept up, both spectators and combatants yelling out abuse and defiance at the top of their voices. When a single fight took place, each gave and received in turn a violent blow on the back with the club until one or other had had enough. Should an unfortunate woman receive a badly aimed blow she was allowed to lie where she fell until she was sufficiently recovered to crawl to her hut.

Wives are very badly treated by both up and down-river natives. Rawling witnessed a deliberate attempt to drown a young wife by her husband and his elder wife. A fishing net was thrown over her, and the unholy couple held the ends down beneath the water, and it was only the threat to shoot them that saved the young wife from certain death. There was no attempt at interference by any of the other villagers.

When it was explained to the natives that it was desired to penetrate into the hills, guides readily offered themselves. Accompanied by two Gurkhas and a dozen Papuans, Rawling set out along an abominable track that was so obstructed with cacti that the greater part of the day was spent in cutting a way through the four miles of forest that lay between them and the first large river encountered. It is difficult to realize the density of the forest growth. The vegetation, through which only the scantiest glimpses of the sky can be obtained, appears to form, as it were, two great horizontal strata. The first comprises the giant trees whose topmost boughs are one hundred and fifty feet or more above the ground ; the other, the bushes, shrubs and trees of lesser growth, which never attain a greater height than thirty to forty

feet. Such is the richness of the soil that not one square foot remains untenanted, and the never-ending struggle to reach upwards towards the longed-for light goes on silently and relentlessly. Creepers and parasites in endless variety cling to every stem, slowly but surely throttling their hosts. From tree to tree their tentacles stretch out, seizing on to the first projecting branch and limb, and forming such a close and tangled mass that the dead and dying giants of the forest are prevented from falling to the ground. All the well-known devices for determining direction are set at naught by this all but impenetrable mass of vegetation.

At length the stony bed of the River Kaparé was reached, from which a grand view of the mountains were obtained. The guides would go no further, so camp was pitched, fish were caught, and then to sleep. An hour later Rawling was awakened by a rush of feet and was just in time to see the last of the Papuans disappearing into the bush. Fearing an attack and judging his present position to be too close to the jungle, he and his Gurkhas moved into a more open one in the bed of the river, and there waited. An hour elapsed but nothing happened, than a hail reached his ear to which he replied. He approached nearer the spot and discovered one of his Papuans, who was apparently discussing some grievance very volubly; to this Rawling replied with very voluble abuse; and thus, carrying on their mutual unintelligible conversation, they reached their former camp. Rawling can give no reason for the stampede, but thinks the men were overcome by an unreasoning and contagious superstitious fear.

The Papuans refused to go further up-stream, so Rawling took what observations he could of precipitous mountains with knife-edged ridges covered with the densest vegetation, of deep gorges, and of an immense

precipice—a sheer perpendicular wall of rock, bare of vegetation and black in colour, and then returned to Parimau. It was then decided to explore the Kaparé, and the first night was spent at Obota, a village of three hundred inhabitants, some distance west of Wakatimi. The paddlers obtained from this village proved capital boatmen, and pleasant companions. For some distance progress was eminently satisfactory, and then occurred an impassable barrier of shoals and rapids which effectually put a stop to any further advance. So the party dejectedly made its way back to Wakatimi.

Rawling had not accompanied this expedition by boat, but had camped with his Gurkhas five miles further up the river than the limit of the last expedition, making preparations for the arrival of the boat party. No boat arrived, as we have seen, and provisions began to run low. The only birds they could bag were hornbills, which are, apparently, very tough, and consist of little more than beak and neck. A party of Papuan hunters appeared on the scene, but no blandishments would induce them to act as carriers to a district more alive with game, so Rawling and his Gurkhas were compelled to adopt the rôle of carriers themselves.

They plodded on in uncomfortable silence for some time along the river-bed, when with a loud yell one of the Papuans dashed past Rawling, followed by the others. Rawling's first thought was that of attack, then visions of pork floated before his eyes, and dropping his load and girding up his loins he pounded along in the rear. Being left behind he cast about for the spoor of a pig but saw only human foot-prints. As man-hunting was not in his programme he sat down to await the turn of events. Before many minutes had passed the excited voices of the men could be heard as they drew near, and then from the forest there emerged a confused mass of savages, in the centre of which, held firmly by the

arms and driven forward by sundry proddings behind, were two small naked men, differing in appearance from any he had hitherto seen. Although outnumbered they put up a vigorous resistance that engaged the attention of all their big-framed brethren.

When the party reached the place where Rawling stood the captives were released, now cowed by fear and exhaustion, with their eyes fixed on the ground, anticipating the worst. They had been deprived of their bows and arrows, their grass helmets, and their bags of precious odds and ends, all of which were being distributed piece by piece. These were all restored with the addition of a few beads, which brought a flickering smile to their faces. The men were of good proportions, without any signs of dwarfishness or deformity. Their small size was very noticeable when standing beside the Parimau men, who averaged 5 ft. 6½ in., while they barely reached 4 ft. 7 in. They proved to be members of a mountain tribe known as Tapiro, living on the lower slopes of the mountains, where their villages and plantations lay. Their dress consisted of a grass helmet, with upright rims, and a projection at the crown into which a bird of paradise plume could be inserted. Over one shoulder was suspended a string bag containing a collection of fishing tackle and fire-sticks. As it was to the advantage of the expedition to be on good terms with these people if they wished to penetrate into the mountains, they were given a few more trifles and allowed to depart. The elder of the two immediately disappeared into the jungle, but the other remained for two days, then he, too, went. He proved to be very intelligent, and showed the method by which they lit their fires.

Two implements were required—a stick of hard wood and a length of split rattan. A cleft was made in the stick in which a stone was forced to keep the sides apart. Then, having placed one end of the stick beneath

Hill Natives at Dinawa

his foot and the other over a bunch of dried leaves, he passed the rattan rope beneath the cleft stick, and grasping it with his hands, worked it rapidly backwards and forwards till the friction engendered by the rattan against the sharp edge of the stick produced ignition. The smouldering leaves were then blown into a flame. Thinking the simplicity of a common match would please him, a box was offered to him, but he merely gave a gasp of astonishment and a grunt of disapproval, and refused the present.

The Papuans had by now abandoned their stubborn mood and offered to carry the baggage to a spot three miles up-stream, from which point a few more miles of the river were explored. When they learnt of Rawling's intention to enter the hills they wished to accompany him, and to this he consented. On their way along the river bed two more pygmies were captured after a hard tussle against overwhelming odds. These, as in the case of the others, were well treated but compelled to follow the party. Across the boundary line between the land of the pygmies and that of the plainsmen, the Papuans refused to go, so Rawling was left with two Gurkhas to proceed alone. But the path was so difficult and intricate that Rawling was compelled to retrace his steps to the point where the pygmies had been captured. A death-like stillness prevailed; all had departed, big and small. Repeated attempts were made to reach the home of the pygmies but each failed, and, disappointed, Rawling returned to camp.

A final attempt, thanks to the persistence of a Gurkha, ended in success. He acted as guide or pioneer and finally brought them to a clearing. Their movements had been noted, and in response to repeated yodelling a small crowd of eight pygmies soon gathered. They were truculent and unsociable, and refused all overtures, with bows and arrows ready for instant use. The

clearing was cultivated with a mixed crop of taro and sweet potato, but there were no signs of dwelling-places. All attempts to discover the regular route to the plains failed; the pygmies stubbornly refused to succumb even to the fascinations of a piece of red cloth, so Rawling was compelled to retire by the same path by which he had come, for the time being satisfied with what he had learnt, and returned to Parimau.

The village had by now become completely transformed, for the inhabitants, fired by the example of the invaders, had worked such improvements both in architecture and sanitation that the place was unrecognisable. The European camp, too, had been enlarged, and a farm-yard established, stocked chiefly with cassowaries and pigs. Dogs are a valuable asset all over New Guinea on account of their keenness and hunting instincts. They are about the size of an Irish terrier, thin, lank, and covered with mange. They do not bark but give vent to a dismal howl. But valuable as they are they are cruelly treated. Women are of no account; they are merely drudges, and the accessories to a man's comfort. No ceremonies attend a birth, death, or funeral; youth rapidly develops into maturity and forty-five is old age. There is no knowledge of medicine, and the sick are uncared for. A widow's "weeds" consist of a cloak and skirt of plaited grass together with a great poke bonnet which stands out from ten to twelve inches from the face. The widower makes no outward expression of his grief. Corpses are exposed on trestles or buried. In the former case decomposition soon sets in, leaving the bones only. These are hung in a grass bag from the rafters of the hut. The skull, however, is the only part deemed of great importance. Wishing to secure one for scientific purposes, Rawling, unwilling to offend the tender susceptibilities of the inhabitants, entered into private and secret negotiations with a

friendly native. To his dismay the man went into the open and yelled out at the top of his voice that the white men were collecting skulls. No hostile demonstration followed, but at least a dozen men raced to the camp, each with a skull tucked under his arm, eager to obtain trade goods without the nuisance of working for them.

The men possess courage amounting to foolhardiness; rapids, crocodiles or snakes possess no fears for them, but an electric torch filled them with terror. The endurance of physical pain is great, as was shown by the terrific thumps they received in their single combats.

So far as mammals were concerned the results of collecting were disappointing, but the birds on the other hand are of absorbing interest, and in no other part of the world can so many species be found, so varied in plumage and so striking in their peculiarities, and ten new species were discovered. There is a riot of colour in the birds but a dull monotony in the vegetation.

A fresh consignment of coolies now arrived, much superior to the last. They set to work with a will, and soon became quite proficient in their various duties, especially paddling.

Trade goods varied in favour with the natives; Jew's harps were scorned, or used as ear decorations by a few; looking-glasses were only of ephemeral interest; beads became a drug in the market; axe heads and knives were in favour; but a man does not want to accumulate a store of axes or knives, and if he has attained his heart's desire, why should he work for more. So reasoned the native mind. Empty tins, especially kerosene, jam-jars and bottles were good trade articles. Salt is useless, as the natives dislike it. But cloth, whatever the condition, quality or colour, is the *ne plus ultra* of the native, and he who possesses a

disreputable garment which was once a waistcoat, is a proud and happy man.

Fights and festivals, more often the former, varied the monotony at Parimau. One morning the camp was awakened by a terrific din, and Rawling was in time to see a very interesting mêlée in active progress. The chief and most interested combatants were engaged in the centre of an excited crowd, but now and then an onlooker, not to be out of the fun, would join in and make an indiscriminate attack, while a small band carved its way through all the fighters, then on reaching the other side carved its way back. When order was restored it was discovered that a woman was the foundation of the row. She had evidently escaped to Ibo, a neighbouring village on the Wakura river, so a council was called and it was decided to attack the Ibo people next morning. Warlike implements were searched out and trade knives ostentatiously sharpened. Next morning a long line of warriors set out, but the warlike ardour of many had cooled, and excuses were found for returning to the village. At length the leaders, finding that their following was gradually approaching the vanishing point, discussed the question and decided that it was not worth while attacking the Ibo people, and returned home. The day following there was an invasion by the Ibo people into Parimau, withal a peaceful one. They were received with open arms and treated as old and trusted friends, especially as they had brought plenty of provisions. These were followed by an influx of other visitors until the accommodation was strained to breaking point. An air of suppressed excitement pervaded all, and it was evident that something unusual was in the wind. For two days the noise of drumming and howling was incessant.

Accepting an invitation, Rawling and the others took up a commanding position. Two boars were driven

into the jungle by weeping women, and thence by a hidden path into one of the huts. The men formed themselves into a three-sided square, an orchestra of drums forming the fourth. Behind these were grouped the women and children. The square advanced, being harangued at intervals by the headman of the village, who terminated by discharging two arrows over the tree tops, which seemed to give universal satisfaction. This had taken place on the bank of the river, but now a move was made into the village, where Rawling and Marshall were given an honoured place on a platform specially erected for them. After a pause the men, furnished with large rattan nooses, placed themselves on either side of the hut in which the boars were confined, and at a given signal the animals were driven forth, successfully overpowered and trussed. With a man seated astride each animal, and to the accompaniment of loud wails from the women, they were lifted shoulder high, carried to the place of slaughter and lashed to the platform.

The executioners rained a hail of blows on the animals, whose squeals were drowned by the yells of the people. Then for five minutes the audience gave itself up to unrestrained wailing and gnashing of teeth ; the women hugging and clasping the carcases in their unnatural grief, whilst the air rang with shrieks, and tears coursed down every cheek. A three-year-old child was then brought out, painted from head to foot a bright red, and carried to the now empty platform. It looked as if human sacrifice were to be included in the proceedings. But this was not so, for he was merely carried round the platform shoulder high. It was only a ceremony of initiation.

The dead pigs were then laid side by side in the village square and each man leaped over them, giving them a blow with his heavy club in passing. Twice was this

repeated and then, seizing the carcases, the whole party jumped into the river. A general washing and cleaning up followed, after which the pigs were solemnly carried to the shore. After more speeches the carcases were cut up and distributed. The remainder of the day was given up to jollification and horseplay, in which the women had a particularly good time of it; for once they had the right to beat the men to their heart's content, and pay off old scores. The men were not allowed to retaliate, and could only take refuge in the jungle or deeper pools of the river.

The proceedings, however, terminated unpleasantly, for at this point a canoe rounded a bend in the river bringing the news that a convoy attached to the expedition had been stopped and robbed, presumably by Parimau men. The whole village was seized with panic, and in five minutes all the people had cleared into the forest. The culprits, however, gave themselves up; a few articles were recovered, and after a stern word of advice as to what would happen in the way of reprisals should anything similar occur, the matter was closed.

There seemed to be little, if any, stealing among the Papuans themselves; they seemed to take a pride in deceiving one by deliberate lying, and when detected showed more amusement than shame. What they lacked in skill they made up for in cunning. As there was no system of runners, it was convenient to send messages written on pieces of paper. This to the native was incomprehensible; still, if one piece of paper represented in value an axe head, surely another similar piece should be equally valuable. So when pay-day arrived and the workers lined up to receive their wages in trade goods on presenting their checks, idlers and loafers would join the queue armed with Lemco labels or odd pieces of wrapping, and great was their indignation when their naive efforts at duplicity were received with

shouts of laughter. An attempt to imitate a *billet-doux* twisted in a certain shape, but of course containing no message, met with the same fate. After this failure nothing more was attempted in the same line—it looked so simple, and yet never bore fruit.

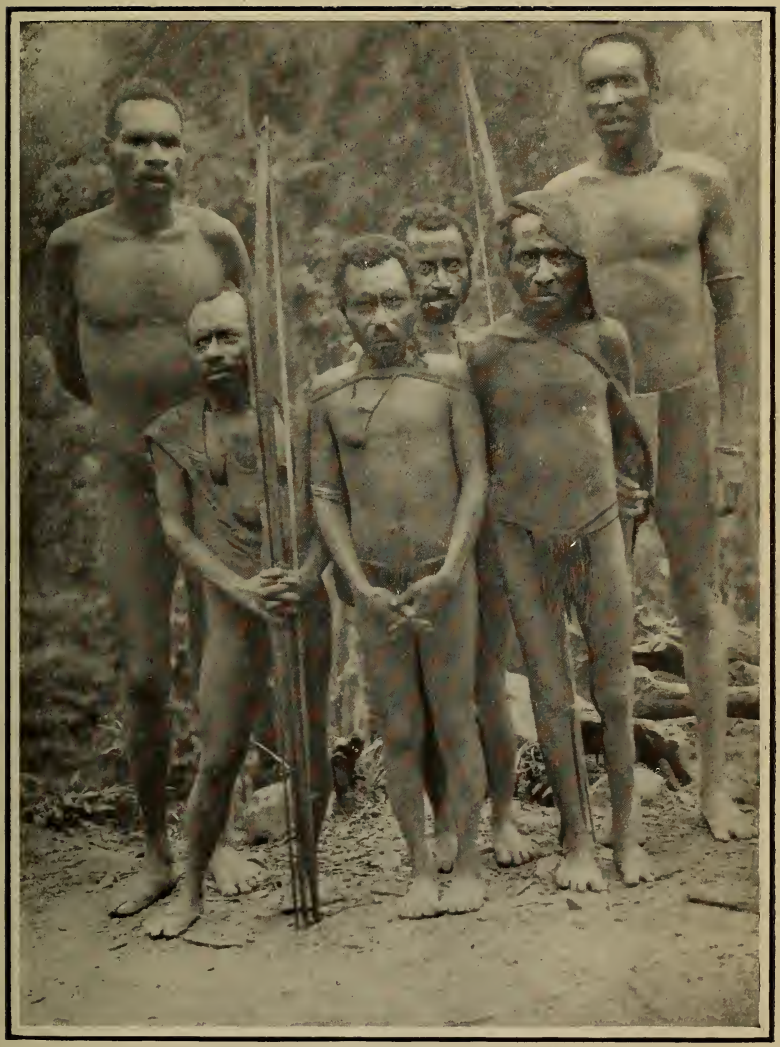
At Parimau the acquisition of wealth appeared to have an ameliorating effect on the inhabitants; but at Wakatimi, on the contrary, wealth produced sloth and idleness, and consequently more time and opportunity to indulge in drunken orgies.

CHAPTER XVIII

A LAND OF PERPETUAL RAIN

Transport difficulties proved a great obstacle to the intention to penetrate the country as far as the mountains ; the steam-launch lent by one of the relief vessels was not powerful enough to stem the current when towing a string of loaded canoes, so Goodfellow decided to cross to Dobo and try to buy a motor-launch from the pearl-fishers. Meantime search was made for a more navigable river than the Mimika, but still keeping Wakatimi as a base. How greatly changed for the better had this camp become. The position certainly was bad, as it was almost level with the water, and liable to inundations, but it was the best that could be found in the vicinity of the river.

Explorations in the *Dreadnought*, a large roomy dug-out with a very comfortable beam, brought them to Nimé, a large village in a land-locked bay on the coast. Their appearance caused great consternation, and the inhabitants took to their heels into the jungle, but soon returned, the men having bunches of leaves in their armlets, and the women casting handfuls of sand, or flinging clouds of powdered chalk into the air, in order to make clear their peaceful intentions, and friendly relations were established. Resisting a pressing invitation to camp in the village, the *Dreadnought* was moored some distance away in a quiet sheltered spot. This was fortunate, for during the night a strong breeze brought the waves over the narrow spit of sand, completely wrecking many of the huts. The natives of Nimé do not adopt the general plan followed in New Guinea of



PLAINSMEN AND PYGMIES

Two plainsmen and four pygmies. The cap and bags are of woven grass.

building their huts on piles, so as to raise them above the low swampy ground which is so liable to inundations. The wretched people took refuge in their canoes, but were compelled to stand by and witness the havoc wrought on their homes, the surrounding country being one vast mangrove swamp without a foot of land being visible at high water. As the tide fell and the feeling of security was restored, the natives showed their eagerness to trade fruit and odds and ends, amongst them being included their wives and daughters, who showed no reluctance. Stone clubs, bows and arrows, and even skulls were temptingly placed in prominent positions. The natives have very little knowledge of the properties of iron or steel, and good knives are ruined at once by being used for chipping or carving stone.

On a tour of exploration up the Kaiqua river the *Dreadnought* was escorted by a crowd of canoes, whose behaviour became so boisterous and suspicious that Rawling determined to make a dash down-stream to Nimé, where he spent the night, and the behaviour of the villagers was all that could be desired. Rawling is uncertain if the conduct of the men was hostile; at any rate he determined to be wise before the event. It was discovered afterwards that although the Kaiqua was merely a creek with a large mouth, and navigable only a few miles, there was a passage behind Nimé leading east into the Timoura river, but kept secret lest the white men should migrate, and so the natives would lose the monopoly of trade with them.

Photographs and illustrations from papers formed a never-ending source of joy to the people of Nimé, but as they knew only four animals—dog, pig, wallaby and cus-cus, with any degree of intimacy, it was amusing to hear them describe a Derby winner as a pig, or a Highland bull as a cus-cus. Society beauties were greatly admired, and were assumed to be the wives of the white

men, thereby bringing them much honour. Certain toys delighted them, but a watch was assumed to be alive, so it was not curious that it should make a noise. These natives dislike salt, and will not touch salt fish however hungry they may be.

A return was made to the Mimika, but the voyage was extended further west with a view to exploration. Whilst exploring the Ateoka, a canoe full of men from Obota overtook them, somewhat aggrieved that they had passed their village without the courtesy of a call, and begged them to stay the night with them, when they would give their visitors all the delicacies the place could provide. They carried out their promise—but at an exorbitant price. The supply, however, exceeded the demand, and prices fell. The place proved to be a delightful spot. Acres of land were thickly planted with bananas, over which rose an occasional coco-nut tree, whilst up-stream were numerous tobacco plantations. The people were most averse to parting with their visitors on the following day, and with their arms full of sago dishes, spears, skulls, etc., stood on the bank attempting to drive one last bargain, until the *Dreadnought* was lost to sight round the bend. After a pleasant visit to Dobo, in the Aru Islands, a return was made to Wakatimi.

Both the Mimika and Obota rivers were found to be in full flood. Trees and often whole islands of vegetation were rushing down the stream, jostling each other in a confused mass as the surging torrent swept onwards to the sea. Already the surrounding country was inundated, leaving the camp and native villages as islands in the midst of a vast timbered swamp; the former preserved for the moment by the dykes which had been thrown up, and the latter by the accumulations of years of household refuse. The rise continued and finally the waters burst through the camp. The native village of

Tourapaya collapsed like a pack of cards. The natives frantically threw their more precious goods into canoes, and vanished for good. Box was piled on box, but tons of valuable food-stuff were ruined. Rawling's hut happened to be slightly higher than the others and had only two and a half feet of water in it. Nothing could be done except wade about and try to protect the more perishable articles. For three days and three nights did the scene of havoc and discomfort last. It was perfectly miserable to have to sit in the hut, with one's legs dangling in the water, and watch every small article which could float appear at one door, swish across the room and pass out of the other, to join the vegetation sweeping down the river. Insects and all manner of creeping things, driven from their dark corners and hidden recesses, swarmed up the poles and walls, whilst along the beams overhead scurried numerous families of rats. The whole country from the mountains to the sea was under water, and so widespread was the flood that coolies returning from up-stream paddled right across the peninsula into the doorway of their own sleeping house, after being fifteen hours in their canoe. This visitation was the worst the expedition experienced, but it was not the last. On the fourth day the waters subsided and fell steadily; work was recommenced, and the putrid fish and evil-smelling rice cast for ever into the river.

The Mimika continued in full flood, but this was an advantage, for it provided an opportunity of testing the abilities of a new motor-boat obtained from Dobo. Canoes were lashed three abreast, and on the platform were piled the goods to be transported and towed by the launch. What a luxury it seemed after the toilsome labour of paddling.

Another of those inexplicable actions on the part of the Papuan carriers occurred during an expedition to

the Wataikwa river under the leadership of Marshall, one of the members of the white party. The carriers had seemed happy and contented, when without a word of warning they walked unconcernedly into the jungle and—vanished. There was nothing for Marshall and his Gurkhas to do but to shoulder double loads, and march back to the river where they had left their canoe ; every hour was of importance, for rations were running very low. When they arrived at the river the canoe was gone ! Every article not of the utmost necessity was hidden away, and a wearisome march to Ibo, the nearest village, commenced. They were met in an exhausted condition with every mark of sympathy by the villagers, who helped them with their loads. The deserters were afterwards punished by being debarred from all privileges accorded to other workers and villagers.

Parimau had by this time assumed imposing proportions. The numerous improvements and extensive clearings had almost eradicated the mosquito nuisance ; but on the other hand the bluebottles increased, until life became almost unbearable ; their persistent lust for laying eggs in food and clothes drove one to the verge of madness. Rawling feelingly remarks that of all pests New Guinea flies are the worst.

During the first year of the expedition in the country it was but rarely that one experienced the luxury of dry clothes, and yet not a single man suffered from a cold in the head. How it rained ! During the first year rain fell on three hundred and thirty-three days, and on two hundred and ninety-five days was accompanied by thunder and lightning. Was there ever such a streaming land ?

A passage had been cut to the Kamura, a swift stream difficult to cross, but with beautiful surroundings. Broad, with a stony and sandy bed, the river sweeps between lines of casuarina trees, behind which again

grows the ranker vegetation of the forest, with its tangled mass of creepers, vines and undergrowth. Every other large river in these parts is of a similar character, except the muddy, crooked, and tree-jammed Mimika, the most useless of all rivers as a line of communication. The goods hidden by Marshall were recovered and piled on the shoulders of the carriers as a sort of vicarious punishment for the misdemeanour of their relatives, greatly to their disgust. The march was then continued to the Wataikwa, where a site for a permanent camp was chosen on a stony elevation, which had the appearance of being immune from inundations, and where the surroundings were healthy and attractive to the eye. It was hoped that from here some access to the mountains might be found by following the course of the river. To do this the river had to be crossed dozens of times, a by no means easy operation with the rushing water up to one's armpits. They were now well in the hills, nearly five hundred feet above the sea and amidst the most beautiful surroundings, with rounded slopes clad in every species of tropical vegetation rising on all sides, while up the valley rugged mountains could be seen, too precipitous to scale, but still clothed wherever a shrub could get a hold. Black and white cockatoos whirled noisily overhead, and the spoor of pig, cassowary, and wallaby were to be seen meandering in all directions. They were far from the hunting grounds of the natives, a sanctuary for game and a place where, to the four-footed animals, man was unknown.

The river bed was followed, but it became more and more restricted, until at last a pool which could not be circumvented, and was too deep to be forded, put a stop to further progress; so steps were retraced to the last camping place in the bed of the river, and just in time, when the river roared down in spate. Had the

river risen more suddenly, or the retirement been delayed, it would certainly have resulted in the loss of goods, and probably of life. The only course left was to cut a path eastward through the jungle. But now rain came down in a steady, persistent downpour, and the work was continued in the worst possible conditions. The density of the growth almost passes belief; through it no man can force a way unless with an axe in hand, and as the majority of the trees are of the hardest wood, the stems varying from four to eight inches in diameter, and clothed from top to bottom with water-laden earth hidden beneath a cloak of moss, progress at times became impossible. An idea of the labour entailed in the task of clearing a two-foot path may be judged by the fact that a stretch of five thousand yards required three weeks incessant work before a man could pass along without brushing the stems. Snakes abounded, some poisonous, while all the time mosquitoes buzzed around and leeches prowled over one's clothes in search of a succulent piece of flesh.

The Iwaka river was at length reached, a turbulent yellow-stained torrent racing between stony shores. A site for a new camp was chosen, and search made for a ford, but for three days none could be found. A Gurkha found a twelve-foot python lying along the branch of a tree with its head hanging down a couple of feet. The natives quickly cut off its head with a piece of split bamboo, but not until it had been cut into two-foot pieces did its contortions cease. These pieces, with the addition of a repulsive-looking iguana, were destined for the supper-pot.

To the south of the camp many of the greater birds of paradise were dancing in the trees. In olden times they were believed to have no legs and to live continually in the skies. Hundreds of these skins are exported annually from New Guinea and the Aru Islands, and

since the female lays but one egg during the nesting season, and the males do not come to full plumage until three years of age, it is merely a question of time before the breed is exterminated, unless restrictions are placed on their indiscriminate slaughter. No more beautiful sight can be witnessed than that of a full-grown male, with his great yellow breast plumes passing upward between the outstretched wings and forming a quivering arch over his body, dancing up and down before the female, and doing his utmost to win her heart.

A return was now made to the Wataikwa, and thence to the Mimika and Parimau. Although the Wataikwa showed no signs of anything unusual, the Mimika gave evidence of a severe storm, though only eighteen miles separated them. Persistent rains so swelled the volume of water in the rivers that not a single foot of land appeared above the level of the overflowing streams. The village of Parimau was swept away, and even the land on which it was built had disappeared. For some time the white men's camp, though built fifteen feet above the level of the water, tottered on its foundation. The morning light revealed a waste of turbid water dotted with canoes laden with a heterogeneous mass of household treasures and human beings, anchored to trees, but before an hour had passed the natives had resumed their phlegmatic calm, and fires were burning in the stern of each canoe. A new village was built when the waters had subsided, but the same fate overtook it.

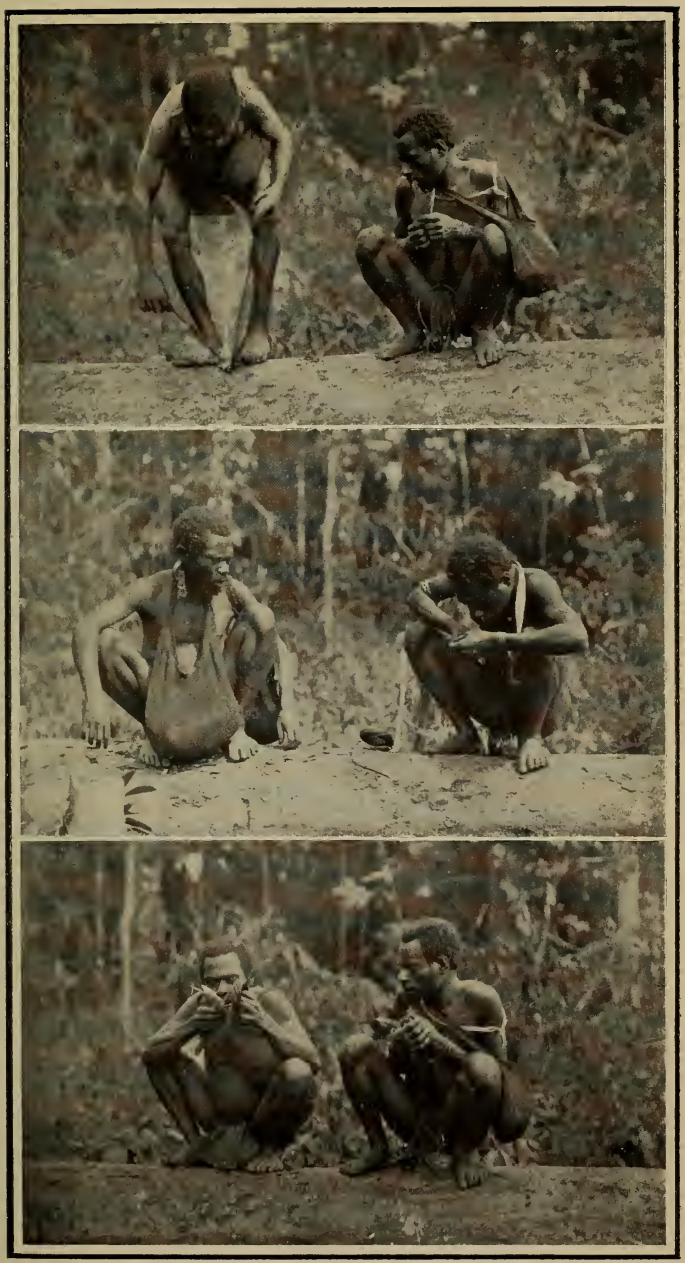
Mention has been made of the motor-launch obtained with so much trouble from Dobo. A bad fate pursued her, for the Amboina in charge of her, against orders, attempted one pitch-dark night to return to Wakatimi on a high flood. Mistaking a clearer portion of the forest for a bend in the river he ran her full tilt into a mass of piled-up tree trunks. With constant bailing

the launch was floated to Wakatimi, where she sank, to remain under water for a month. With the assistance of some Dutch pioneers she was docked, patched up and retarred, but she leaked so badly that a man had to be employed continually in bailing her out.

A return to Parimau, of which only a fringe of huts remained, was followed by a visit from the people of Ibo for an annual dance and hunt. The dance was successful, but the hunt was a woeful failure. There is no doubt that the constant firing of guns by the collectors had scared away the game. Consequently the natives were crest-fallen and sulky ; so orders were given that all carcases, after being skinned, should be given over to the natives for their cooking-pot. Where a Papuan is, nothing is wasted.

For the fourth time the ill-fated village of Parimau was swept away, and nothing but the hope of doing trade with the white men restrained the natives from migrating to a less luckless locality. The darkness of night, the gurgling suck of the waters, the cries of the natives, and the fall of great trees, both in the water and in the jungle, produced a pandemonium not readily forgotten. Scarcely had the natives recovered from this disaster than another one threatened. This decided them, for sick of being washed so regularly and persistently out of their homes they packed their canoes with every portable article, sailed down the stream, and were no more seen, leaving only a few loafers.

While on a collecting expedition, Grant, a member of the expedition, hit on a path which led to Wambirimi, the principal home of the pygmies discovered many months before. His reception was decidedly cold, no women or children being seen, a sure sign of unfriendly feeling, and he was given to understand that his room rather than his company was desired. Rawling and Marshall determined to follow the same path to the



PYGMIES MAKING FIRE

1. By friction causing the wood to smoulder.
2 and 3. Blowing the smouldering embers into a flame

pygmy village and spend a night amongst them, and, if possible, take notes, measurements, and photographs. They hoped, also, to see the womenkind. No time was lost in setting out. It was eight months since Rawling had last seen the Kaparé river, along which he now was travelling; all the old landmarks had vanished, carried away by the swirling floods, or were so altered as to be unrecognisable, and their old camp, together with two miles of the path they had hewn with so much labour, had completely vanished.

On the third day they set forth on the final climb to the village of Wambirimi. The track led directly up the narrow ravine out of which the river flowed. At times it wound along razor-backed ridges, at others dropped into dark and gloomy ravines, but was always compressed into the smallest dimensions by the all-enveloping jungle. Not a sound broke the silence of the forest except the call of a solitary bird of paradise; and the sight of a large snake of exquisite emerald hue which passed quietly through the line of men and into the undergrowth beyond, was the only form of life which met the eye. But that life did exist was proved by the numerous small noose-traps set at intervals along either side of the path, but of such small size as to be incapable of holding anything more formidable than a rat.

A steady climb brought them to the top of a knoll from which could be seen clearings and cultivated ground. But the silence was so oppressive that the carriers began to show nervousness. To show that the intentions of the party were friendly, Marshall gave a loud hail, and a halt was made. A babel of cries arose from the cultivated area, the shouts of the men and the shrieks of the women as they fled to the jungle. Down the mountain sides the hillmen converged from all directions, racing along the felled trees and across the tangled

growth, shouting at the tops of their voices, and fitting arrows to their bows as they ran. An excited confab followed in which Rawling's carriers explained that the intentions of the visitors were quite friendly, so that, making the best of an unpleasant intrusion, they allowed the party to stay, but with a very bad grace. Their avarice, too, was excited by the boxes of trade goods, calculated to enrich the community. They were led to the village, their guide showing his sense of humour by drawing his bow with arrow pointing full at Rawling's body, grinning the while. Rawling appreciated the joke with a somewhat forced smile. A place was pointed out on which the tents might be pitched, but all the time they showed great suspicion, and no women or children were to be seen. But after a time, as their visitors manifested great indifference to them, and in some measure owing to a judicious distribution of beads, they evinced a more friendly spirit. They were, as a rule, well developed, but so dirty that only the prominent parts of their bodies showed their true colour, which was somewhat lighter than that of the coast Papuans. The nose was straight and broad, the eyes black, the jaw marked, and the general contour of the face oval. In dress they varied little from those who were first captured.

Large and strong net-bags of coarse string, interwoven with a pattern of yellow fibre, are worn slung over one shoulder, and from the corner hang from one to as many as twenty boar's tusks, trophies of the chase, and highly prized by the owner. The bags contain the entire sum of their portable possessions, a roll or two of string for fishing purposes, a fire-stick, and a length of split rattan, birds of paradise plumes, and other odds and ends, all jealously guarded and never allowed out of the owner's possession. Another bag of smaller size is suspended round the neck close up to the chin, where it is

protected from the rain, and in this is kept tobacco, tinder, and dried leaves for use as cigarette papers, for they are great smokers.

Many wear earrings of the small black seeds of the wild banana, and necklaces of the teeth or shoulder-blades of the wallaby. On the body itself was very little or no clothing. The houses are substantially built of wood, on piles about ten feet above the ground, with a verandah in front three to five feet broad, to which access is obtained by a ladder of a very primitive kind consisting of a pole with notches. Fires are lit in a box of sand let into the middle of the floor. In spite of persuasion and bribery the men were obdurate in their refusal to bring forward their women, whether from a fear that they would be carried off, or from some other cause, could not be ascertained. After their first feelings of trepidation had worn off, the men placed themselves unreservedly in the hands of the white men, and permitted themselves to be measured and photographed without reluctance, especially when they found that no evil consequences resulted. Relations between the pygmies and the plainsmen were not cordial, as the latter adopted a superior air and treated the little men in a manner which they resented, helping themselves to whatever they fancied until called to order. The hillsmen exchange tobacco for dogs and shells with the plainsmen. Tobacco as has been said is smoked in the form of cigarettes with a dried leaf as the outer covering, and a crack is made in the centre through which the smoke is inhaled.

As tolerance rather than friendliness, and in some cases absolute hostility, appeared to be the key-note of the relations between the two parties, it was evident that the visitors were outstaying their welcome, and accordingly it would be wiser to leave in peace. So preparations were made for departure, and the expedition

was escorted as far as the top of the hill, then left to itself.

The return to Parimau was followed by illness amongst the European members of the expedition, which left Rawling and Marshall as the sole white representatives. Left to their own resources they moved to the coast and pitched camp on the seashore close to the village of Atabo. Their new neighbours proved less interesting than those of Parimau, more sulky in their manners, and more grasping in their dealings.

Meantime the derelict motor-launch had been thoroughly overhauled and put in working order, and a return was made to Wakatimi. Rawling had now assumed the leadership of the expedition, vice Goodfellow invalided home. A new relay of coolies had arrived, as unsatisfactory as the first lot; but with these it was determined to attempt a penetration to the mountains, and stores were transferred from Wakatimi to Parimau as quickly as possible by the launch, but the lowness of the water greatly hampered proceedings, and half-way up the goods had to be transhipped to dug-outs, which were hauled along by main force. A double murder took place at this time in the camp, two men, both convicts, attacked each other with knives so ferociously that both were dead within five minutes. The incident created little interest amongst the others; the use of the knife in the East is too common to give rise to comment.

After considerable transport difficulties had been overcome, a start was made for the Wataikwa river, which they found a chaotic mass of turbulent water; the camp they had formed eight months before was now an island surrounded by a racing stream, and the storehouse was tottering to its fall. But by strenuous exertions and a stout rattan rope everything was transferred to the opposite bank. Further east rushed

the Iwaka river, but no practicable ford could be discovered. A reward of one hundred guilders was offered to any who could devise a means for bridging the torrent. Eager to win this fortune the coolies started up- and the Gurkhas down-stream. Evidences of the coolies' work came floating down in the shape of felled trees with broken backs, and in the evening a dejected party returned with failure stamped on their faces. The Gurkhas, on the other hand, came back with the news that one of them had succeeded in crossing the river with the aid of a rattan fastened to his waist. He had proceeded up-stream to a tree which had been previously noted from the bank as standing in a favourable position, and had felled it with such precision that it had remained spanning the river two feet above the water. Even though the river was lower than usual owing to the fine weather, the accomplishment of this feat required both pluck and enterprise, and was a feather in the cap of the Gurkhas.

Over the tree a rattan was carried and secured to both banks, but during the night a flood came down and swept the frail bridge out of existence. There remained now only the flimsy rattan connection between the two banks, beneath which raced the swirling torrent. Increased bribes failed to bring forward a volunteer who would attempt the passage until a Gurkha offered to cross. Tying a rattan to his waist in case the other should give way, he proceeded laboriously to haul himself across. His body was dragged level with the surface of the water, but he grimly made his way hand over hand until he reached half-way where the upward struggle began. The exertion was telling on him and his progress was slow until he reached the three-quarter mark, when he stopped. The rattan secured to his body was hampering his movements dreadfully, for the stream had caught it and it was dragging him down. It seemed only a matter

of moments now! Fortunately at this critical pass his life-line broke, and he was free. With one last effort, urged on by encouraging shouts from the bank, he completed the few remaining yards and sank exhausted on the bank.

With one man on the opposite bank the work of building the bridge proceeded apace; more rattan was passed across and tied to the trees until finally a strand of five thicknesses was in position, along which an agile man could pass in comparative safety. All through the second day the work was continued, and by nightfall the bridge was complete. The two upper parallels, each formed of many strands, served as hand-rails, whilst below and between them hung the footway, also consisting of one thick rope. From one hand-rail to the other, and beneath the foot-rope, were passed loops, so that the weight of the passenger should be equally distributed, and the whole sufficiently strong to allow the laden coolies to cross in safety.

The journey was now continued, and as the objective, Mount Godman, could not be reached owing to the failing supply of food, it was resolved to make certain of what was within reach rather than to run the risk of not obtaining any results at all. So a spur was climbed and a camp pitched three thousand two hundred feet above the sea. The site was bad but it was the only one possible. Next day the ascent was continued through a tangled mass of vegetation, from which any incautious movement brought down a copious shower of water, until an altitude of five thousand four hundred feet was reached and camp was pitched. During the last thousand feet the path lay over a thick layer of live or dead timber on which the heavier members fared badly.

One day's rations only remained beyond those required for the return journey, so leaving the miserable coolies in the camp, and taking four of the best cutters,

Rawling set out to make a forced march, and after hours of hacking and hewing reached a height of five thousand six hundred feet, and suddenly arrived at the very kind of spot they had so long been striving to find. They found themselves on the narrowest of ridges, with the ground, bare of trees, dropping sheer on either side. The low shrubs were at once removed, and there they sat hoping against hope that the mist might clear. Instead of this it gave way to a dense fog, which they knew full well would last till nightfall. With spirits at low ebb they returned to the camp. An uncomfortable cold night was passed, the miserable coolies verging on collapse.

Before daybreak a hasty cup of tea was drunk, and a race to beat the sun began in the darkness. Wet to the skin from the exertion and the drippings off the trees they broke out at last upon the open ridge to find not a cloud in the sky, and the most glorious view that Rawling ever saw unfolded before his eyes. Not a moment was lost; observations were made and details entered only just in time, for clouds were collecting and rolling down the distant mountain sides. Where they had imagined lay the course of one river they found another; a hill here, a ravine there, were now exposed to view, though all had been hidden from the level of the plain. To the north, standing out hard and clear, rose the great precipice already referred to. Black and forbidding towered the great cliff, formed of hard limestone, the stratification of which could easily be seen. The highest point is Mount Leonard Darwin, a castellated peak, with an altitude of fourteen thousand feet above sea level. The face here has a clear drop of little short of ten thousand feet, or about one and three-quarter miles—far and away the greatest precipice in the world.

The work was done. The quest, though falling short

of what had been hoped for, had succeeded. But at what cost of life, money and time!

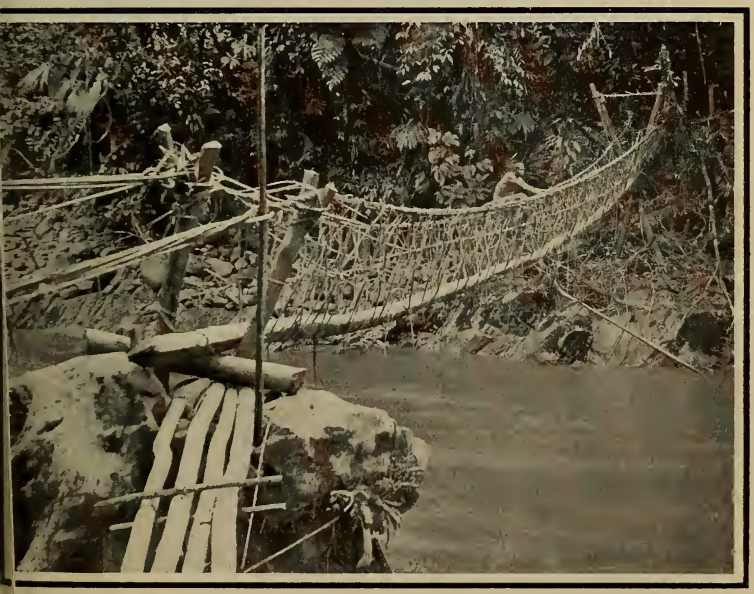
So eager was every one to get back to their base that the Wataikwa was reached in half the calculated tim e

The work remaining to be done was to explore the coast, and transport the stores from Parimau to Wakatimi. Before leaving the neighbourhood Rawling made one last effort to catch a glimpse of a pygmy woman, but no arguments, blandishments or bribery would prevail with the men, so the attempt was relinquished, and axes, beads, etc., were finally packed up in disgust.

In the meantime a hurricane had swept over Wakatimi, levelling many of the storehouses and buildings with the ground, but the damage had been repaired with such energy that when Rawling returned there were but few evidences of the destruction wrought. The launch, too, had met with another mishap; she had been set on fire, and the petrol tank had burst, but by dumping on bucket after bucket of dry earth the flames were subdued and the hull was little the worse.

An exploration of the mouth of the Atoeka river was now undertaken. The entrance is fine and free from obstruction, but a few miles higher up is navigable only for boats of shallow draught. The village of Atoeka is large and clean, with a pleasant background of coco-nut and bread-fruit trees, and tobacco plantations beyond. The reception was friendly, and the eagerness to trade, keen. A visit was next paid to the Kamura River, a splendid sheet of water, navigable for large launches as far as Ibo. Had this river been chosen as the base of operations, instead of the muddy, fever-stricken Mimika, what a saving of life, time, and trouble would have been effected. But regrets were useless, for its existence was not known. The launch once again encountered misfortune, for she ran full tilt into a log, so that her engines were for hours disabled. As further

THE GURKHA JANGBIR
Hero of the bridge-building episode.



SPANNING THE TORRENT
The bridge thrown by the expedition across the Iwaka River.

trouble was to be expected, hope of more extended exploration up the river was abandoned, and a return made by the eastern or Kamura branch. They suddenly came upon the village of Kamura, and were welcomed by a wild-looking crew of a much lower type than had been previously encountered, both men and women being in a complete state of nudity. No attempt was made to trade, so the engines were started again. They were followed by four canoes full of men, but the launch soon left them behind. But the motor-engine again broke down, and while it was being induced to work the four canoes came up alongside. Without a word two men stepped into the launch and began to shoulder a box of knives and axes. With a yell one of the Gurkhas sprang at him and drove the muzzle of his rifle into the thief's ribs. The box was dropped as if it had been red-hot, and the canoes drew off to consult. The result was that one half disappeared into the jungle, while two canoes watched from above. Fortunately, and without any warning, the engines began to work, and the natives were left behind looking very disappointed. There is no doubt that blood would have been shed had they attempted a second attack.

Within an hour the launch arrived in a glorious bay, studded with islands—a pleasant, peaceful scene. There were shoals of gorgeous-coloured fish of all shapes and sizes. With occasional stops, Wakatimi was at length reached.

The exploration of the Wania river was now all that remained to complete the map of the district. The mouth of the river, which a week before could not be sounded with an eighteen-foot pole, was now completely blocked up by a bar of sand. Then happened the crowning misfortune to the launch, for off the mouth of the Atoeka the propeller dropped off. A storm was rising, and there were numerous foam-covered reefs.

The launch was towing a yawl laden with stores, and an attempt was made to tow the launch by means of the yawl's oars. But the current was too strong and ground was lost, so the anchor was dropped. In this perilous condition they remained until midnight, when the wind dropped. Morning dawned and it was decided to abandon the launch for the present, since towing was out of the question. Goods and men were transhipped, leaving but two or three inches of freeboard, and after a precarious passage a landing was effected on a mud-bank in the bay of Timoura, tired and soaked, but thankful. Next day the stores were unloaded from the yawl, and the launch was towed to the beach in a very bad condition. By the aid of some natives she was paddled to Nimé. The village was quite deserted ; one of those inexplicable fits had seized the natives, and they had stampeded in a body. Two days later they were in Mimika Bay, although defeated by the Wania river, glad, nevertheless, that they were out of an awkward predicament.

The expedition was now over and the work complete ; there was little with which to reproach oneself and much with which to be content, leaving only the pleasurable anticipation that the final day was at hand. Thousands of specimens of animal life had been collected, and much valuable ethnographical and geographical information acquired.

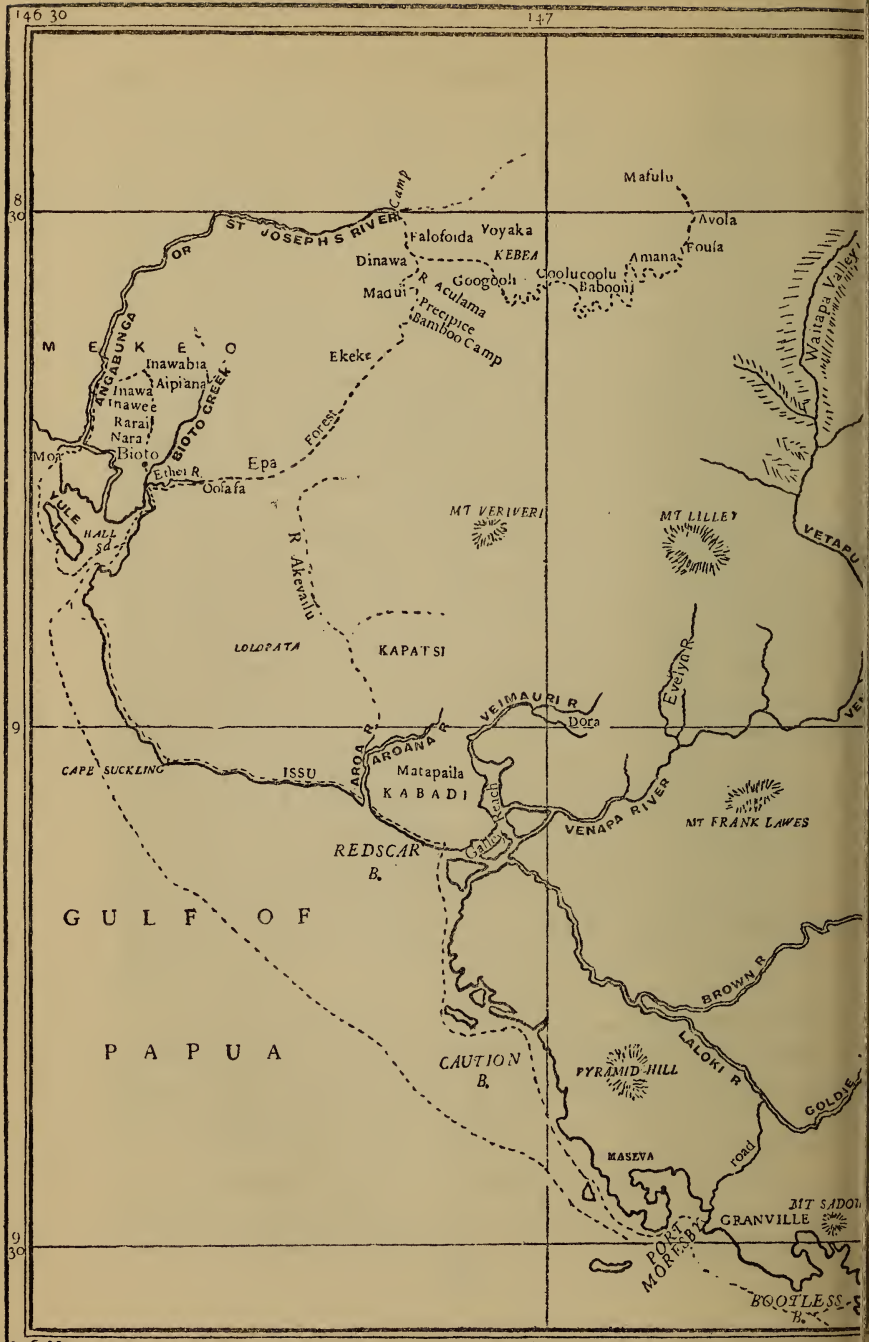
[The information given in these two chapters has been derived from Capt. (late Brigadier-General) C. G. Rawling's book, *The Land of the New Guinea Pygmies*, by kind permission of the author.]

CHAPTER XIX

THE HOME OF THE BIRD OF PARADISE

In the course of thirty years of almost continuous journeyings in both hemispheres, it was Mr. Pratt's fortune, as a naturalist and collector, to stray far from the beaten tracks and to know something of the spell and mystery of the earth's solitudes. His work in quest of additions to the great Natural History collections, both public and private, had led him to the Rocky Mountains, the Amazons, the Republic of Colombia, the Yangtse gorges, and the snows of Tibet; but it is safe to say that none of these aroused his interest and curiosity to so great a degree as his expedition to the still almost unexplored Papua or New Guinea, second largest of the world's islands, and almost the last to guard its secrets from the geographer, the naturalist, and the anthropologist. It had been his intention to work first in Dutch New Guinea, but various accidents, and the hostility of a warlike tribe, brought these plans to an untimely end, and he had to spend the greater part of his time within the borders of the British possession. Port Moresby, the British Government station, on the south-west coast, lat. 9° 30′ S., consequently became his main base of operations, and it was in a north-westerly and south-easterly direction from that settlement that his journeyings lay. During these journeyings he was accompanied by his son Harry, a lad of sixteen.

After his disappointment in Dutch New Guinea, Mr. Pratt sailed for Port Moresby, the approach to which is dangerous owing to the reefs which encircle the coast,



NEW GUINEA

MR PRATT'S ROUTES - - - - - - -

and accordingly great caution had to be used in navigating the ship into harbour. This is an unpretentious and sweltering place, running Hades or Aden a close second.

The preparations for his expedition occupied Mr. Pratt's careful attention for some time, as he was penetrating into unknown land, and the journey would occupy three weeks through a region where roads were unknown. Carriers had to be procured, and provisions, ammunition, " trade " goods for traffic with the natives, cases for specimens, and the hundred and one things necessary for such an expedition had all to be provided and packed in portable form.

From Yule Island, their headquarters, they sailed for Bioto Creek, a pestiferous place notorious for its mosquitoes, but a perfect region for feathered game. The inhabitants of the village were not particularly amiable, and showed themselves extremely grasping and extortionate in their demands. After some delay they agreed to convey the expedition by canoe as far as the path to Epa, a village some miles further on. The chief of this village, Mavai, proved a true friend to Mr. Pratt in his difficulties. He was a fine man, a great hunter, and a strict disciplinarian, and at his word the chief difficulty, that of carriers, was smoothed away. At this village the native houses begin to be beautifully constructed. They are on a raised platform, and look like inverted boats, the roof being formed by bending over long sticks, so as to form an arch that is thatched with sago leaf. The floor is particularly good, and there is an admirable guest-house, with a fine level floor of split sago, the pieces being one and a quarter inches wide, neatly laid and bound together.

Next morning the journey to the next halting-place, Ekeikei, was resumed. At times a path had to be cut through the dense brushwood, but where the forest

foliage was thick nothing, of course, would grow beneath. They now had their first experience of that pest of the most humid land tract of the globe—the leech. It is a little creature about three quarters of an inch long, very much smaller than the European variety, but inflicting the same sort of three-cornered bite. They do not at once make their presence felt until one realizes that the part is covered with blood. They attach themselves to any exposed part of the body, and, of course, the natives are easy victims. Another abominable little parasite is the scrub-itch, a microscopic nuisance which is brushed from the bushes, and after the manner of the jigger or chigo, burrows under the skin, and if not promptly bathed in warm salt and water causes a terrible irritation very difficult to get rid of.

The road, or rather track, was rough, and everywhere beset with ravines and precipices which called for the utmost care, but at length Ekeikei was reached. Next morning the journey was resumed to Bamboo Camp, where the forest trees were so high and thick that scarcely any light could penetrate. The surroundings were gloomy and depressing in the extreme, the silence broken only by the drip-drip of the rain and the " wauk, wauk " of the bird of paradise. For two hours the track skirted the Deeanay precipice, and the way led under enormous overhanging boulders which reached out some distance overhead. Close to the precipice they saw some curious mounds of what appeared to be sawdust. A nearer inspection showed that the tree under which the mounds lay was completely riddled to the height of at least one hundred feet by coleopterous larvæ. It was unusual to find beetles so congregated, for the distribution is usually very scattered.

As they were approaching Madui one of the carriers struck work, but the persuasive influence of a gigantic

stinging nettle applied by his companions induced him to change his mind. Leaving Madui they crossed the River Aculama through a district loaded with lycopodiums, ferns, and rhododendrons. The Aculama contains large prawns about five inches long—a very welcome addition to the larder.

Dinawa, where it was proposed to pitch a permanent camp, was at length reached, and a clearing was soon found suitable for the erection of a habitation. The village was only fifty yards away, but the natives were very shy, until the exhibition of the " trade " treasures excited their wonder and admiration, and overcame their timidity. Labour was required to build the house, and as the report of Mr. Pratt's wealth reached other villages, further contingents arrived, and by the promise of good pay in tobacco and trade goods, through the medium of Sam, Mr. Pratt's Cingalese servant, sufficient workmen were soon secured. A dwelling-house was soon built, roughly it is true, but still providing safe shelter. On the edge of the precipice was erected a collecting verandah, which could be opened on both sides, forming, as it were, two verandahs back to back. The whole of the structure was raised off the ground on poles, and the boys had their quarters beneath. Beautiful water was obtained at the bottom of the hill, but it took three-quarters of an hour to fetch it. The day's work began early with the baking of bread and the brewing of tea. Bread rises easily in New Guinea, and a small quantity of hops brought with the expedition provided the yeast, and the supply was kept going by keeping back a small piece of dough from one batch for the next. After breakfast the boys were despatched to collect entomological or botanical specimens ; but the native is a hard man to stir into activity ; time is no object to him, and he likes to sit, smoke, and tell yarns. Collecting boxes and pins were

provided, which they occasionally appropriated, but these pilferers were soon sent to the rightabout. Mr. Pratt's lieutenant was Ow-bow, and a very capable collector was Doboi, a youth of fourteen, but who had attained to man's estate. The day was spent in scientific work, and the early hours of darkness in moth collecting. The natives were very shy of the camera, and one of them on being shown a print of himself promptly dropped it and shinned up a tree.

A long-continued drought seriously affected the success of the work, forest fires destroying the vegetation and killing the insects, so it was decided to transfer the camp to the St. Joseph river, which was low, but beautifully limpid and very rapid. Tents were pitched on a patch of sand near the stream, and a bridge made by cutting down trees on the opposite banks so that their branches intertwined in mid-stream. Further up the stream the natives had constructed a really ingenious suspension-bridge of creepers and bamboos. The fish in this river were numerous and of good size. They are wonderfully provided by nature with an appliance which helps them to combat the extraordinary current. At one moment they would appear to be swept down resistlessly, but suddenly they would shoot off into the quieter water and attach themselves to the rocks by a strong sucker near the mouth. There they hung just outside the current, their tails moving gently with the eddy, and when they had recovered their strength they would make another dash through the swifter waters, coming to anchor again when baffled.

It was not all tranquillity while in this neighbourhood, for there were rumours of war, and one fierce chief who exercised a reign of terrorism over the neighbouring villages invited Mr. Pratt and his followers to visit him at Mi-mi when he would kill the natives and cook and eat the heads of the white men. A projected visit to

TWO NEW GUINEA DANDIES

They are natives of Dinawa. Notice their tight-laced waists and the nose ornaments of polished shell.

this amiable warrior was abandoned, and a strict watch kept at night.

As the stay at the St. Joseph river did not prove very productive it was determined to return to Dinawa, and on his journey Mr. Pratt secured a treasure, a new *phallonopsis*, a white orchid which fulfilled the strictest canons of the orchid fancier, combining a perfect whiteness with a thick waxiness of blossom that gives to a plant the very highest value, and this delightful specimen was as near the ideal as possible. It rested on a lovely damp bed of moss in the fork of a tree, and drew its nourishment from the humidity of the atmosphere. The drought had worked terrible havoc at Dinawa; there were no provisions, the people were dreadfully emaciated and deaths were frequent. As a longer stay would have been fruitless it was determined to break up the camp, pack up the specimens, and return to Epa. The packing was of the utmost importance, for the specimens were fragile and delicate and the cases would receive rough usage in transit. Specimens were securely packed in shallow trays, and these again were securely packed in larger and rougher cases, for they had to be slung on bamboos and carried by the boys, and any violent concussion might break off the wings, legs, or antennæ of the insects. A good instance of native wireless telegraphy was afforded while at Dinawa. Mr. Pratt had sent out one of his collectors, and wished to have information about him before leaving the camp. The wireless was set in motion, signals were shouted from one hill-top to another, for in the clear air of that part sound carried for great distances, and in a very short time Mr. Pratt had learnt all he wished to know, and some time afterwards the collector himself appeared. He reported that his companion had been murdered; his jugular vein had been severed by a spear, but whether by the truculent chief mentioned

above, or by some lurking robber, could not be found out.

After a tiring journey Oofafa was reached, thence by sea to Port Moresby without mishap, except that the botanical specimens were ruined by the salt water, an irreparable and most disappointing loss. The other cases, however, were unharmed, and were despatched safely to England.

A somewhat protracted stay at Port Moresby was varied by a visit to Hura, the great fishing-place. The village is fairly large, and most of the houses stand in the water on piles. The shore is thickly fringed with coco-nut plantations. The people live by supplying the inland natives with fish. They go down to the fishing-ground, about two miles from shore, in small dug-out canoes ; the fishing is done at night, and just as the sun sinks the canoes pass out in great crowds. In each boat are four or five fishermen, who pole up the shallows, and paddle when they come to deeper water. As the darkness deepens the flotilla suddenly bursts into flame, for their method of attracting gar-fish, which is their chief quarry, is by burning huge flares of dried palm leaves. Each of these flares is made up of a considerable bundle of leaves, and the men brandish them about in their hands. The light lasts for a considerable time. The effect of these many fires reflected in long streaks on the water is extremely picturesque. The fishing lasts all night, and at dawn the fleet returns with the catch.

The work is not unattended with danger, for sometimes the gar-fish, which are armed with a sharp sword-like projection of bone from the front part of the head, will, as they leap in blind terror of the light, strike the fishermen and kill them. The natives set up a stick in the water where anyone has been killed by gar-fish.

There being nothing of interest in that dull region to detain him, Mr. Pratt decided to return to Port Moresby

by sea. The canoe was a dug-out, about eighteen inches wide, which just held Mr. Pratt, his son Harry, and two boatmen. When their journey was half done a tremendous swell began to come in, and soon the dug-out was dancing like a cork and shipping seas so that constant bailing was necessary. It seemed problematical if the journey would finish at Port Moresby, but the boatmen, though frightened, handled the canoe skilfully. They kept the little square sail of matting under excellent control, and steered with the flat of a paddle from the side at the stern. Finally, close to Hula, they got into calmer water, and eventually reached Port Moresby in safety.

Preparations were now made for an expedition into the unexplored interior, and, as usual, the chief difficulty was the collecting of sufficient carriers. Goods were sent as far as Ekeikei in relays, thus following the line of the former expedition. While passing through Epa Mr. Pratt noticed specially the extraordinary method of water supply there in vogue. A spring which supplies the community was distant some twenty minutes' walk down-hill, and twice every day, in the morning and just before dusk, the women went down to draw water. This they carried in long bamboos measuring at least twelve feet. The partitions dividing the sections of bamboo had been knocked out with a long, hard stick, but the bottom one was allowed to remain, and these light but unwieldy receptacles, capable of holding about thirty-six pints each, were taken to the spring and filled. The open end was plugged with a green leaf, and the women carried the vessels up-hill held slantwise over their shoulder. The bamboo was set up against a shady wall, beside the house door, and the method of procuring a small supply of water was comical in the extreme. Whenever one wished to drink two people had to officiate; one took hold of the bamboo by the lower

end, and the other held the higher. It was then gingerly lowered, for the greatest care had to be taken not to tilt it too far, otherwise more water than was required would have come out with a rush and drenched the drinker.

Mavai, the chief, who had befriended Mr. Pratt on his first expedition, gave him a hearty welcome. He was busily engaged in hunting the cassowary and the pig, and generally keeping up his reputation as a great sportsman. As a mark of his esteem he presented Mr. Pratt with two eggs, for he kept fowls. These were boiled with lively anticipation of a treat, but the breaking of the shells only led to the discovery that the eggs were of a remote antiquity. They were passed on, however, to Ow-bow, Mr. Pratt's headman, who received them with gratitude, for he regarded chicken in this form as a very great delicacy indeed.

A start was now made for Ekeikei, which Mr. Pratt had selected in his mind as the scene of future labours, and on arriving there at once set about building a permanent camp. He chose the site, which was fifteen hundred feet above the sea-level in a part of the forest overlooking a fine valley, and all set to work speedily, felling the forest trees to make the necessary clearing. It was a big business, but he intended to erect much more permanent structures, which were to be built large enough not only to serve for scientific work, but as a depot for expeditions to other districts. The house and two collecting verandahs were all in one building, one verandah facing the forest and the other the valley, so as to permit of work being carried on whatever the direction of the wind. The whole structure was built on poles six feet six inches off the ground, so that the boys could shelter, sling their hammocks, and take their meals below. This work occupied three weeks, in which Mavai's people assisted, and were helped by the villagers of the neighbouring chief, Kafulu. These

came in to lend a hand for the sake of tobacco and other trade articles they needed.

The best thatch to be obtained in Papua is the sago leaf, and of this the natives make roofs that are watertight and very durable. At Ekeikei this plan was adopted. Along the rafters of the house were run horizontal bamboos, and instead of a ridge-pole roof were fixed two of these bamboos running from end to end a few inches apart. The frond of the sago leaf, which was used for this purpose, is at least four feet long; it measures six inches at the base, and tapers to a point. To begin the thatch, one takes the leaf and bends it two-thirds away from the apex. One starts from the bamboo horizontal that lies nearest the eaves and hooks the leaf over, laying the pointed end out. On the next higher bamboo one hooks over another leaf, similarly folded, so that its long pointed end far overlaps the other, and so on until the ridge of the roof is reached. The operation is thus repeated until the whole roof is thatched. The space between the two parallels which form the ridge-pole is finally covered with grass laid thickly across and across. The sago leaf is grooved laterally, and forms, as it were, a natural water-spout for carrying off the rain.

So durable is this roof that after an absence of five months they found their Ekeikei house still watertight. The thatch is, however, a great harbourage for cockroaches, and there must have been millions of them in the house. At night they could be heard rustling among the dry leaves. They did not appear to do any actual damage, and they had the grace not to fall down on the occupants.

The members of the expedition had settled down to routine work when a cloud loomed black in the horizon in the shape of the chief Kafulu. This worthy, whose village was an hour's journey off, had often visited the

camp while the building was in progress. He was a very low type of Papuan, with a receding forehead and a face altogether ape-like. After his people, who helped in the building operations, had been paid off, Mr. Pratt did a little business with the chief himself, and ordered sago stalks for wattling the sides of the house. For these he was paid in advance, but the sago was not forthcoming. Mr. Pratt made no complaint at first, and this probably led the chief to believe that he could treat him with further contumely, for he suddenly began to threaten the boys, until at last they would no longer venture out into the forest to collect. Accordingly Ow-bow and his wife were sent down to Kafulu's village to know the reason why he did not deliver the sago, which was several weeks overdue. Ow-bow was allowed to take his gun with him, but no cartridges, and his empty weapon evidently was not impressive. The poor emissary's experience was painful; Kafulu did not take his life, but he took his effects. Now, every Papuan carries with him as his most cherished possession a little net-bag, containing a charming collection of oddments dear to the savage mind—his knife, tobacco, bamboo pipe, matches, which he had earned, betel-nut and gourd, and little trophies of the chase. All these Kafulu took from the unfortunate Ow-bow, as well as his blanket, his dogs'-teeth necklace, and other adornments. Thus bereft, Ow-bow returned to the camp with his tale of wrong. Kafulu then sent a polite message to Mr. Pratt informing him that he had no intention of sending the sago, and further, that he was not to shoot bird, kangaroo, wallaby, or any game around his camp, for they were the chief's animals; otherwise he would burn the camp and kill the occupants.

As matters stood thus, greater precautions were considered necessary, for it was more than likely that a treacherous spear might, in the darkness, penetrate the

thin sago walls of the house, and perhaps find its billet. Accordingly an inner screen of one and a half inch bamboo poles was built around the beds, and it was very improbable that a spear would penetrate both wall and screen.

Matters did not improve, and so Mr. Pratt, taking his son Harry and his servant Sam with him, determined to try what a little plain personal dealing with his amiable neighbour would effect. He found the chief sitting in his village, smoking his bau-bau in solitary grandeur and extremely surly. He gave no greeting, in fact took not the slightest notice of his visitors, but continued to smoke stolidly. They sat down, and Mr. Pratt at once opened the affair, Sam and Harry acting as interpreters. He was told that unless he sent the sago at once, and returned Ow-bow's property, it would be necessary to bring pressure to bear on him. This was continued for three-quarters of an hour, entirely on Mr. Pratt's part, for it was not until that time had elapsed that Kafulu deigned to reply. He then remarked that he did not want them in the neighbourhood, and that he could not answer for it that his villagers would not wipe them all out. At the end of an hour he showed some signs of relenting, but the victory was not yet won. The parley still continued, and Kafulu resumed his pipe, whereupon Mr. Pratt gave him some tobacco, which he accepted without thanks. At the end of three hours certain arguments prevailed, and he produced some of Ow-bow's goods. Ow-bow remarked that that was not all, whereupon Kafulu promised to send everything, to deliver the sago, and also that he would not frighten the collectors any more. With this assurance they shook hands upon it and the party returned to camp. Two days after, the sago arrived, and in four days the whole of Ow-bow's possessions were returned.

During the stay at Ekeikei an earthquake shock was experienced which shook the house violently. It was accompanied by a tremendous and oppressive heat with death-like stillness; the skies were inky black, and there was a perfect deluge of rain, so heavy that it could without exaggeration be said to come down in bucketfuls. Then the heavens opened with what seemed to be rivers of lightning, for the discharges resembled great main streams with thousands of fiery affluents, and all around the thunder crashed terrifically, seeming at times as if it were in the house. For three-quarters of an hour there was no cessation of the din. A tree just below the verandah was struck and split from top to bottom, but fortunately no one was injured.

After the worst of the storm had passed, a fierce hurricane came, tearing up the valley which the camp faced. Its roaring was heard long before its force was felt, but beyond tearing off some of the thatch of one of the buildings no great harm was done, for with a view to such occurrences all the large trees in the vicinity had been felled.

Swarms of wasps haunted the low bushes in this locality, and concealed themselves under the leaves so cunningly that the traveller did not perceive them until he was actually upon them. Their bodies are a dark yellowish brown. At the least disturbance they all rise together in a buzzing cloud and take vengeance. The sting is severe, but the pain fortunately does not last long. It dies out in six or seven minutes, leaving a red lump which gradually subsides.

CHAPTER XX

THE HOME OF THE BIRD OF PARADISE

A JOURNEY to the coast with packages of specimens followed the settlement with Kafulu, and although it was not eventful, the one night spent at Bioto will always stand out vividly in Mr. Pratt's memory. At Bioto they put all their cases on board a canoe, and set out with two natives to navigate the overladen craft to Pokama. As they did not leave until late they were forced to spend the whole night in the creek. In their crazy vessel, weighed down almost to the water's edge, for she had only three inches of free-board, they lay close inshore, under dense mangrove trees. Sleep was impossible, for they were assailed by mosquitoes and other discomforts; added to this they had to endure the stench of mud, the hoarse cry of the mound-builder, the clacking of myriads of bivalves as the tide receded, the incessant rain, the inky blackness of the night, and the unmistakable presence of innumerable crocodiles. Fortunately they did not know then that only a short time before, near the same place, two natives had had a desperate fight with a crocodile, which lifted one of them right out of their canoe; the other fought the crocodile gallantly, and managed to get his companion back into the boat, when the saurian, nothing daunted, returned to the attack, and seized the poor fellow again, dismembering him.

They reached Pokama, thence to Hall Sound, where they found the ketch *St. Andrew* about to sail for Thursday Island. A succession of calms was followed by a strong wind, which aided by a swift tide drove them

on to a bad reef when about thirty miles from Thursday Island. Stone ballast was thrown out, and after bumping about for four hours, and making many unsuccessful attempts to get the boat off, losing an anchor and a chain in the process, they managed to get clear with the flood tide. Next night they got into Thursday Island with the loss of some sheets of copper. A sharp attack of fever prostrated both Mr. Pratt and his son Harry, but they were successful in getting their collections despatched. Their return to Hall Sound was equally unfortunate, for a gale blew away their sails, and for three days they beat about in a heavy sea, not knowing exactly where they were, but eventually they succeeded in getting under the shelter of Yule Island in a disabled condition.

The return journey to Ekeikei was preceded by the usual carrier difficulty, but after great trouble and much searching and persuasion an inadequate force was raised and Ekeikei reached in three days. Fresh trouble awaited Mr. Pratt, for German measles broke out and the sufferers proved anything but docile patients, for as soon as they became convalescent each wished to return to his own village, which of course would only have spread the disease.

Mr. Pratt's son Harry, who was then only sixteen years of age, shortly afterwards made an adventurous journey alone to the Kebea, a district some distance in the interior among savages and cannibals. From Kebea he went north to Yo-ya-ka, which he described as a most remarkable place. The Papuan ridges, with their strangely perched villages, are not easy to describe. These ridges rise up almost to a razor edge, and the footway on the Yo-ya-ka ridge was certainly no wider than fifteen inches. This narrow strip of foothold followed the main street of the village, and on each side of it the houses were on supporting poles. The extreme

sharpness of the declivity on each side, of course, made the houses much higher on the side farthest from the road than on that facing it. As structures they were not much to boast of; there were about twenty of them and all were tumbledown. The people were preparing for a feast, and were strutting about in their feathers and paint. Some were alarmed at the white youth and called out "fi-fi," that is, magic.

While here Harry heard a report that Ow-bow's brother had been killed, and this turned out to be true. The brother had taken a fancy to another man's wife, and according to native custom, was willing to pay for her. But to this the husband would not agree, and lying in wait killed and ate him. Compensation to the relatives of the murdered man was offered and at first refused. But after some palaver carried on from one ridge to the other the compensation, in the shape of a pig, was accepted, killed, and eaten, and so the incident was closed.

Provisions had been very scarce for some time, and starvation stared the expedition in the face; it was necessary that supplies should be brought from Ekeikei, or rebellion and desertion would soon follow. For this task Harry offered himself, taking with him a few carriers. But the path led through country which was in a state of great unrest; moreover, it passed through a village, Madui, with so evil a reputation that it was only with difficulty the carriers could be induced to go. The outward journey was safely accomplished and the provisions obtained, but the return journey was not so happy. At Madui trouble awaited them. There had been a native fracas, a man had just been murdered, and the blood-lust was strong in the people, who, on Harry's arrival, demanded that he should give up one of his boys to be killed and eaten. But he, though well armed, had the wisdom not to make any parade of force,

and resorted to persuasion. After much argument he persuaded the Madui people to forgo their demands, but during the night, in the course of which another murder was committed, he kept the strictest watch, allowing himself not a wink of sleep. In the morning they got clear away, and reached the Kebea in safety. It says much for the pluck and resourcefulness of a boy of his age that he should have carried out so hazardous an enterprise to such a successful conclusion.

Preparations were now made to leave the Kebea for Foula, a place fifteen miles further inland as the crow flies, but, of course, considerably more when traversed on foot. Amana, one of the villages on the route, was a most peculiar place, and like Yo-ya-ka built on an extremely narrow ridge, so narrow indeed that they could not pitch their fly-tent there but slept in a house, the front part of which overlooked a precipice. The house commanded a most lovely view far away into the valley, the slopes of which were covered with dense wood. The river could be seen flashing at intervals through the greenery; it must have been fifteen hundred feet below, but the roar of the torrent rose with great distinctness. As the party approached the village the carriers suddenly put down all their loads and would not enter. On being asked why, they said that some time before the chief of Amana had killed one of their people.

Mr. Pratt went in to make the acquaintance of this worthy. He was rather a personable character, quite bald, and with a very noble forehead, but, like most of the more degraded aborigines, he could not look the white man in the face. On hearing of Mr. Pratt's approach he became frightened and retreated to a tree-house, one of the most remarkable curiosities of New Guinea. In the village was a large tree, the trunk of which reached up about twenty feet, bare of branches, and then the main stem divided into a fork. Among the

branches were two platforms. A round ladder consisting of two uprights with rungs placed at an angle of at least sixty-five degrees led to the first. Above that was the second platform, forming the bottom of the house, which was reached by steps very narrow, but not so far apart as the steps of the lower ladder. The tree-house is not uncommon in New Guinea, but it is very exceptional to find two platforms. The uprights and ladders were made of bamboo, and the rungs were made of boughs cut anyhow with walo, a species of cane which grows to a length of twenty feet, and is used for lashings. Each cane is the size of a thick pencil, and has a spiky outer cover. This is peeled off when the cane is ripe, and it is then split, an operation requiring great dexterity, and one which can only be performed by the Papuans themselves, for none but a native could split a twenty-foot cane cleanly down its entire length.

The higher platform which supported the house measured about twelve feet by six feet; it was made of bamboo cross-pieces, interlaced with bark. The roof was covered with grass, and the only aperture was one small door, over which the thatch came closely down. There was just room for a person to crawl in.

Mr. Pratt had considerable difficulty in inducing the chief to leave his retreat, but at length he summoned up sufficient courage to come out and speak to him.

There was a rather mysterious grave just outside the village at the point where the carriers put down their loads. This place, which for some reason or other was regarded as sacred, was surrounded by a low stockade, but no attempt was made to keep the enclosure, which was quite overgrown, in order, and nothing regarding its origin was known, for the Papuans are a people without a history.

The people wore an ornament, an oval, highly-polished grey seed of a species of grass which grows at Amana.

The villagers wore the seeds on strings or singly in the hair.

From the Kebea to Mafulu was a five days' journey along the most rugged, toilsome and difficult path. At one point one had to traverse a ridge which turned in a half-circle, and at the very top it was scarcely more than six inches wide, sheer precipice running down on each side. The dangers of the road were, however, somewhat compensated for by the magnificent view which one could enjoy from that point. The descent was very, very steep, especially the last portion of the road, where it descended abruptly to the creek. The members of the expedition had to hold on by roots and vegetation and to look most carefully after their footing, for a false step might have sent them down a precipice, falling sheer for eight hundred feet, and the marvel was how the carriers managed it with their heavy loads. They seemed, however, quite unconcerned, and took no notice of the dangers besetting them. When reached the bed of the creek was found to be full of boulders, and Mr. Pratt had the curiosity to wash out a few panfuls of gravel and found decided traces of gold.

They ascended by way of one of the two villages known as Foula for four hours, the climb being all the way through dense forest, soaking with the humidity of the atmosphere. Even the hot sun seemed scarcely to affect the prevailing damp. The rocks were covered with lovely shaded begonias, ferns and trailing creepers, intermingled in richest profusion of golden tints. In the early morning the forest was alive with bird life. The trees were of strange magnificence, particularly the mountain pandanus with its aerial roots which cover an immense space, and all converge into one stem sixty feet above the ground, whence the trunk runs up perfectly straight. Everywhere around were tree ferns rising to thirty feet in height, and enormous *lycopodiums* with

leaves ten feet long. These luxuriant forms of vegetation were thickly clustered upon the trees, and some of the masses must have been of enormous weight. They displayed a glorious profusion of scarlet, which had taken full possession of its supporting tree, for far above the domed mass of this superb parasite one could see occasionally large clusters of brilliant blossom here and there. Very beautiful, too, was a small fern with an exquisite iridescent blue on the upper surface of its leaf and a brilliant golden yellow beneath. Parrots great and small and white cockatoos with yellow crests flashed about resenting the intrusion on their privacy by tremendous screeching. Of animals but little was seen, as they are mostly arboreal and nocturnal. Mr. Pratt saw several tree kangaroos but failed to secure one.

The village of Mafulu was very small and the people were very shy. It will be understood from what has been said above of the configuration of the ground that there was considerable difficulty in finding a suitable camping ground. But one was found and cleared, tents were pitched, and a huge fire lighted ; later on in the evening blankets were served out, for all, especially the natives, at such an altitude felt the difference in the temperature bitterly. Next day the camp proper was commenced, and a dwelling-house and collecting verandah erected. The carriers and collectors were somewhat nervous of the Mafulu people and left most of the work to Mr. Pratt and his son, who themselves would not have been surprised to see a spear hurtling through the air. However, their chief discomfort was the humidity of the atmosphere and the annoyance of the leeches. Moths there were in plenty, and twelve different species of paradise birds, but very few butterflies.

Food began to grow scarce ; the tinned provisions had been tampered with, and the party were thrown

back mainly on a diet of sweet potatoes and yams purchased from the Mafulu people, and a few bananas. The men constantly complained of the cold, but Mr. Pratt knew that it was fear of the Mafulu rather than dislike of the cold which prompted the grumbling. It was most annoying, as excellent scientific results were being effected, and admirable specimens being brought in. However, matters reached such a pass that a definite promise was given to the men that all should return in a week.

The country round about was in a disturbed state, and although there were no actual threats, it was necessary for all to be strictly on the alert. The Kabadi people who traded with the Mafulu streamed through the camp, but apparently took no notice of anyone. The Mafulu paid constant visits and always brought their spears, but Mr. Pratt put an end to this by ordering that all weapons should be left outside the stockade, and that all nocturnal visitors should hail the camp and show a light. Provisions had now got so low that all were growing quite emaciated. An attempt was made at bird of paradise soup, but it was pronounced abominable. The men were getting into such a highly excitable state that nothing remained but to make preparations for a speedy departure. When all was nearly completed an uproar brought Mr. Pratt running from his tent to find two or three of the huts blazing furiously, and his own men looking on it as a huge joke. There was no doubt that they had deliberately fired the huts to hasten the departure.

The return journey was accomplished as far as the Delava river without incident of any great moment, but Mr. Pratt found the stream in a terrible state. It was a horrible and uninviting flood to enter. It was full of tangled mangrove roots and treacherous with slimy ooze. The water was foul, mosquitoes abounded, and one

knew that it was a veritable fever-trap. It had to be crossed, however, the natives making a terrible splashing. For the most part they were wading up to their hips in water, picking their way as best they could across the tangled mangrove roots, and occasionally slipping down between them to a depth of two feet. For part of the way they had to swim. Three weeks were spent at Babooni, but here, although their surroundings were beautiful, and the result of the work accomplished highly successful, they were so far as living went no better off than they had been on the higher ground, and the staple food was still sweet potatoes. The finest of the birds of paradise abounded, also the bird-winged butterfly, with its beautiful green and velvet black wings, with brilliant golden fore wings, the under side of which is black.

But scientific work cannot be done on sweet potatoes alone, so five men were sent to Ekeikei to replenish the larder; but as five men cannot carry much, things were not much better. "Trade" too was running short, as the paying off of those Foula carriers who had wished to return home had depleted the stock. But nature provided them with one delicacy—the cabbage tree. The edible leaves grow on a small tree like a sycamore, and the manner of cooking is as follows: each leaf is plucked separately, and when a sufficient number has been got together they are tied up into neat packets, bound round in banana leaves and cane string. Then stones are collected and heated on a large wood fire, and on the top of the hot stones the bundles of cabbage are placed, and over them the natives lay more banana leaves to a depth of about two feet, and above all another layer of hot stones. In about an hour the cabbage is cooked, the outer wrapping is taken off, and the delicacy is served on a banana leaf or a dish. It is a perfect Godsend to the half-starved traveller.

From Babooni they returned to the Kebea, varying the route so as to include the village of Waley. One of the curiosities of this place was the spiders' web fishing-net. In the forest at this point huge spiders' webs, six feet in diameter, abounded. These were woven in a large mesh, varying from one inch square at the outside of the web to about one-eighth inch at the centre. The web was most substantial, and had great resisting power, a fact of which the natives were not slow to avail themselves, for they have pressed into the service of man this spider, which is about the size of a small hazel-nut, with hairy, dark brown legs, spreading to about two inches. At the place where the webs are thickest they set up long bamboos bent over into a loop at the end. In a very short time the spider weaves a web on this most convenient frame, and the Papuan has his fishing-net ready to his hand. He goes down to the stream and uses it with great dexterity to catch fish of about one pound weight, neither the water nor the fish sufficing to break the mesh. The usual practice is to stand on a rock in a backwater where there is an eddy. There they watch for a fish, and then skilfully dip it up and throw it on the bank.

Waley is also a great place for dancing, the festivals lasting for a week at a time. The time is taken up in feasting on roast pig by day and dancing by torchlight.

On returning to Kebea Mr. Pratt was faced with the serious problem of getting down to the coast. He had a large collection on his hands, and " trade " to meet the charges of the carriers was none too plentiful. If the carriers were paid off at Ekeikei he would be cleaned out of the equivalent for ready cash, but if they would go down to Pokame on Hall's Sound matters would be all right. He allowed the idea to be disseminated and discussed throughout the camp, then called a conference. The most active objectors were the wives of those men

who showed a disposition to join the expedition. One woman especially, whom Mr. Pratt described as the worst woman he had met in Papua, and who was cordially disliked by both sexes on account of her vitriolic tongue, was a thorn in his flesh ; wherever she was she was sure to be the centre of a row of some sort or another. Gouba, her husband, tried persuasive methods, generally in the shape of billets of wood, to stem her flow of language, but in vain ; nothing but death could do that, and Mr. Pratt feared that the sorely tried husband might one day in a fit of anger adopt Henry the Eighth's plan.

Mr. Pratt offered generous remuneration, and the conference ended satisfactorily. They now returned to Ekeikei, and on arrival there passed from the land of starvation to the land of abundance. But the carrier difficulty again arose. There were more stores at Ekeikei than there were men to carry them, so the only thing to be done was to take as much as possible to Epa, leaving the rest under a guard. Mr. Pratt depended on assistance from his old friend Mavai ; but he seemed likely to prove a broken reed. For some inexplicable reason he behaved very surlily, and refused all help, and it was only after great persuasion that he at last consented to give assistance. At Oo-fa-fa Mr. Pratt met with a nasty accident, for the cords of his hammock gave way, and for ten days afterwards he suffered great pain from the bruises. At Pokama he took leave of his followers, who showed genuine regret ; this was mutual, for in spite of occasional fits of refractoriness they had followed their white master cheerfully and faithfully.

At Pokama they embarked on board a vessel heavily laden with sandal-wood. They broke a very uncomfortable journey on the coast with the intention of walking to Manu-Manu, forty miles further south, as they wished to do some exploring in the neighbourhood

along the coast. During their journey they saw one of the most extraordinary sights of all their travels—many thousands of soldier-crabs, traversing the sandy beach in detached, regularly ordered bodies that moved evidently by the signal of some common commander. These " armed battalions " stretched for miles, and no matter what figure they assumed, the dressing, so to speak, of the outer ranks was perfect. The advance was fairly rapid, and was always towards the sea. The individual crab is small and has no shell; the body is of a dark fawn colour, exactly resembling the wet sand of the beach.

They reached Manu-Manu safely, and from there went by canoe to Port Moresby; from thence they sailed to Cooktown, and after a stay of three weeks in that place, went down to Sydney and came home by the White Star Line.

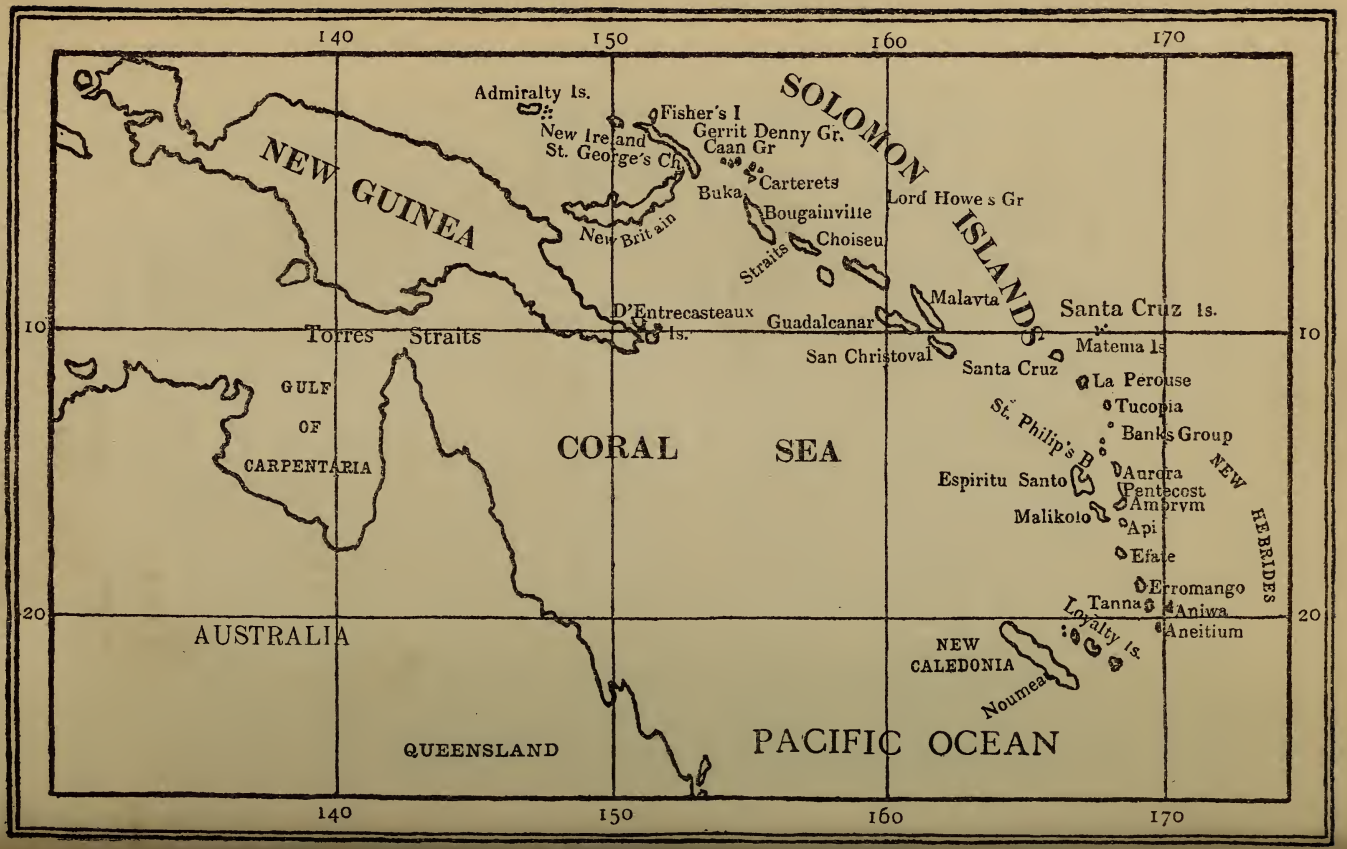
[The information contained in these chapters has been derived from Mr. A. E. Pratt's *Two Years Among New Guinea Cannibals*, by kind permission of the author.]

CHAPTER XXI

THE TREACHEROUS TRIBES OF OCEANIA

The term " Blackbirders " was applied to those vessels employed in recruiting native labour from the South Sea Islands for the plantations in Australia, chiefly the sugar plantations of Queensland. The natives were decoyed or forced on board these vessels, the hatches were clapped on and the unhappy Kanaka had to serve a term of years of literal slavedom on the plantations, rewarded by a collection of tawdry articles of little value, the ruffians who provided the labour receiving so much per head for their share, a sum which made the risks and labour worth undertaking. The growing abuses, however, created such a feeling of hostility on the part of the Islanders that no white man's life was safe among tribes never noted for their trustworthiness, so the Government stepped in and put a check on the malpractices, and refused to grant a licence to all recruiting vessels which did not carry a Government Agent, that is, a Government official who should look after and safeguard the interests of the natives, and see that they quite understood what they were undertaking. The Government Agent had full powers over the ship so far as order and discipline went ; he must be a man of determined character, with a quick and sure eye, and a ready finger on the trigger of his rifle for his own self-defence, for the Kanakas* were treacherous by nature, and did not take the trouble to discriminate between

* Kanaka is a Hawaiian word denoting a native of any Australian island, and = a man.



THE RECRUITING GROUND

THE CHIEF OF SANTA CRUZ

The disc on his chest, cut from clam-shell, can only be worn by chiefs. He wears a green stone through the cartilage of his nose. And the ring suspended from the lobe of his ear is cut from tortoise-shell. (J. W. Beattie, Hobart.)

friend and foe if either of them possessed anything which took the fancy, or when roused by passion.

Recruiting vessels bore at their mainmast-head a black ball, the official emblem showing that they were duly licensed. The recruiting boat with the recruiter on board approached the island first; he was followed by the Government Agent in a "covering" boat to keep a sharp eye on both parties. Mr. Rannie's interest and sympathies had been aroused by the account of the death of a friend of his who was treacherously murdered while acting as Government Agent, and he offered his services to the Queensland Government, although the risks he ran were painted in vivid colours. Rannie's first vessel was the *Heron*, a leaky old tub, but a good sailer. After touching at several islands and meeting with only moderate luck, they reached Bougainville, the largest of the Solomon group, but a very heavy surf prevented them from landing. On the shore there appeared to be two tribes assembled, but they did not seem to be on very amicable terms, as they held aloof from one another. They were all heavily armed with very long bows and sheaves of arrows. Besides these weapons some carried spears, and each man had suspended from his shoulder a tomahawk, club, or heavy wooden sword. The tribes were distinguished by the colour of their head-dress. This was composed of a hat exactly resembling an egg-shaped lamp-globe, and of similar size, made of basket-work, those of one party being red, and those of the other white. The opening was narrow, and through it they thrust their mop of hair, with a jaunty tilt to one side. Pulling along the coast they came to a smooth part, and were able to approach nearer the islanders. After a lot of persuasion they were induced to approach nearer to each other and to the boats. Bartering was about to commence when a huge wave caught the mate's boat and hurled it on the beach. The natives

were in two minds, whether to loot or help, but the mate's crew had secured their arms and leaped on shore in time; besides, the rifles of the "covering" boat commanded all the crowd, and the promise of trade goods induced them to a better frame of mind, and the boat was soon afloat. But another great sea caught it and turned it completely over high on the beach with the crew underneath.

A terrible scene ensued. The natives made a mad rush for the boat and dragged it high on the sand, and fought savagely for the axes, tomahawks, and knives that were lying in from two to three feet of water. Two natives would be struggling for an axe; one would manage to free his arm with the axe aloft, and the next instant it would be brought crash, down through the skull of the other unfortunate one. Several could be seen fighting and slashing each other with the long knives and butchers' knives as they rolled over and over each other in the water. Those ashore along the fringe of scrub took up the fight, and a general battle ensued. The arrows were flying in the air like showers of hail.

Presently a large body of men charged out from the scrub on those nearest the boat, and making a wild dash among the bowmen of the red hats mowed them down with tomahawks and hard-wood swords before the red-hats had time to unsling their weapons. The red-hats then took to flight, but were followed by the white-hats with showers of arrows until the bush gave them shelter. A couple of volleys over the heads of those natives who still showed fight and were reluctant to leave their prey soon cleared them off, and with considerable difficulty the boat was dragged down to the water and towed to the vessel's side, a good deal the worse for wear, as most of the metal parts had been stripped by the natives, and even some of the copper rivets started.

SPEARMAN OF ULAWA, MALAYTA

These are barbed fighting spears. The crescent-shaped decoration on his chest is mother-of-pearl shell, showing that he is of high caste. His armlets are cut from the gigantic clam-shell. (J. W. Beattie, Hobart.)

On reaching St. John's Island, a beautiful spot inhabited by a merry and intelligent people, the recruiters were nicely taken in by the "innocent" native. Recruits were numerous and business was brisk. The trade presents were made up and duly handed over to the relatives of the recruits, who then stepped into the boats. But when they had rowed about half a mile from the shore, they gave one shout, and in a body threw themselves into the water, diving repeatedly to avoid the expected bullets. When they reached the shore they lost no time in making for the scrub. Rannie was of opinion that this was by no means the first time this game had been played in order to obtain the presents always made to the recruits and handed over to their relatives.

Having reached the Caen or Kaan Islands, Rannie was one day seated in the stern of his boat, which was backed on to the beach, when a hoary-headed chief approached, and after depositing a basket in the boat asked for some tobacco. As he was lighting his pipe Rannie noticed a suspicious-looking stream trickling towards his feet. He opened the basket and to his intense disgust saw two severed human heads. He flung the basket and its ghastly contents on to the sand, to the great delight of all the assembled natives, who screamed with laughter at his expressions of disgust. The hoary-headed sinner, with a sardonic grin, picked up the two heads, impaled them on two poles, and stuck them up in the sand abreast of the boat. The interpreter said that they were the heads of a young man and woman who wanted to run away and go to Queensland. The young woman was the property of the old man. The previous night the two eloped and hid in the bush to watch for a chance to get away in the recruiter's boats. The old fellow stalked them in the early morning, and taking them by surprise speared them both. Cutting

their heads off he brought them with him as tokens of his prowess.

The natives of these islands are terrible thieves, and very dexterous at picking up any " unconsidered trifle " with their toes, which they conceal until a propitious time arrives for removing it. On one occasion Rannie was talking with a native who was seated on the gunwale of his boat. He noticed the man pick up a tomahawk with his toes, pass it up behind his back and drop it on the sand, when he concealed it with sand scraped together with his other foot. Rannie finished his conversation, and taking out his revolver made a pretence of dusting it with his pocket-handkerchief, but casually pointing the muzzle at the man's chest. He then asked him politely to pick the weapon up for him as it must have accidentally slipped over the side. The man did so, but his chagrin was so comical that the surrounding crowd, who were thoroughly enjoying the little comedy, shrieked with laughter. The man went off with an ugly look on his face. Ten minutes later as the boat was rounding a wooded promontory a spear whizzed out from the scrub just grazing Rannie's neck —a present, no doubt, from the impenitent thief.

Sailing thence to the Gerrit Denny group they encountered a weird-looking crowd of men on the beach with their faces all whitewashed, their ribs all painted white, and with white stripes drawn down their legs, looking like a mob of animated skeletons. They were dancing a horrible dance which the boatmen said was the " dance of the devil-devil." Nothing would induce them to approach closer, as they said they were already too close. As they spoke, the dancers suddenly began to twirl slings round their heads, and stones hummed past or into the boat, cutting and wounding most of the occupants.

Rannie's next trip was on board the *Emily* brig, and while touching at Tanna, one of the New Hebrides

group, he narrowly escaped with his life. Knowing there was a deep fresh-water hole a short distance from the beach he determined to enjoy the luxury of a swim, accompanied by one white man and a native boatman. The latter had a dip in the water, and as he left to return to the boats he laughingly warned him against bushmen. He had not been gone more than two or three minutes when a crashing in the bush close to the banks of the pool caused Rannie to look up, when he saw a red-painted savage in the act of taking aim full in his face with the muzzle of his rifle within three or four yards of his head. Instinct caused him to duck under water just as the fellow fired. When he raised his head he was in a cloud of smoke, and just caught a glimpse of his would-be assassin disappearing through the bushes. He scrambled out, and picking up his revolver sent half a dozen shots into the bush at random. The bushman was headed off by one of the white crew and the Tanna boatman, and sent to his last account.

After touching at several islands the *Emily* reached Mai, one of the Shepherd group, and Rannie noticed that there was some excitement as every one was armed with a rifle, and each one had his left eye surrounded with a black patch of plumbago. He found they had a fine-looking young fellow bound to a tree. They were told that he had, on sighting the vessel the previous evening, eloped with the young chief's wife, their intention being to go to Queensland. The young fellow had been caught but the woman was still at large. Now it was their intention to hang him. Rannie offered a large amount in trade to try and buy him off, most of the natives urging the chief to accept the offer, but he would not give way. He gave an order, and six men stepped out, and firing a volley shot the poor prisoner in the presence of all. It was said the woman would share a similar fate when caught.

The reception of the *Emily* at Espiritu Santo, commonly known as Santo, in the New Hebrides, was not too cordial. Physically the natives were fine, strapping fellows, but were inclined to be saucy, and the *Emily's* crew were warned against them. This warning was justified, for on the morning succeeding their arrival Rannie was returning to the vessel when he was hailed from the shore and saw a man waving a green branch of leaves, and they pulled straight towards him, when he disappeared. They stopped and saw the shining barrels of several rifles here and there among the rocks—an ambush was lying in wait for them. The natives scrape all the japanning or browning off their guns, and burnish them up to look like silver. The crew decided to run no risks and returned to the vessel. They had just sat down to lunch when the skylight came rattling down about their ears in shivered glass and splinters of timber, while volley after volley of rifle shots resounded from the shore, and bullets were pattering about the ship and whistling through the awnings.

Rannie hurried on deck and found recruits and crew taking shelter behind hatches, masts, and deckhouse. The captain was lying unwell in his hammock slung on the boom, and unable to get out without assistance. A rifle bullet had gone right through his hammock within a quarter of an inch of his head. Rannie lifted him out of his hammock, and placed him on the deck away from any danger. By this time the recruits and crew had got over their first scare, and were arming themselves and demanding to be led on shore to fight the Santo men. As the vessel was not more than a hundred yards from the shore the position was a serious one. It was impossible to get away without exposing the crew to almost certain death. If they attempted to get the anchor up they would be shot down at the windlass, and if they went aloft to loose the sails they could be picked off one by

one. The only course was to attack the natives ashore and drive them from their position. Accordingly most of the crew and all the available recruits were put in the boats and a dash was made for the shore. One volley was fired into them, and the boats run on to the beach, and each man, with rifle and any other weapon he had, charged into the bush. The natives broke and fled.

The attacking party followed them up about two miles, until they came to their village. The natives did not make a stand even there, but fled right through. Rannie, however, called a halt. The only being in the village was a little girl about five or six years of age. She was crying bitterly, but they placed her in the fork of a tree out of harm's way and Rannie gave her his silk neckerchief to amuse her. There were a number of fine large tusker boars tied up to trees, and these the crew were shooting and tomahawking. These pigs would be a great loss to their owners, as they were more highly prized than any other possession.

Before leaving Rannie took care that the little girl they left behind was quite safe from any injury. They returned through the yam plantations, cutting down the yam vines and banana trees, and on arrival at the beach they piled all the canoes they could find in three large heaps and set fire to them. The lesson they got was a severe one but wholesome, and the offenders themselves afterwards confessed that they were entirely to blame and deserved the punishment meted out to them.

The voyage of the *Emily* was brought to an untimely end by the death of the captain, who was buried on one of the islands, for as the licence had been taken out in his name nothing remained to be done but to return to Queensland with those recruits that had been secured.

The next vessel to which Rannie was appointed was the *Flora*, and the first place of any particular interest

at which they called was Malikolo or Mallicollo, an island of the New Hebrides group. The firing of their cannon brought crowds down to the beach. They were an ugly-looking lot, with faces and bodies hideously daubed with paint of various colours, and many of them wore grotesque and frightful masks. Their woolly heads were elaborately decorated with feathers and flowers, while their limbs were adorned with bracelets and bangles of many kinds. Some of these were made from wood, pearl-shell, and turtle-shell, but the most important and valuable were the natural tusks of the boars. Great care and attention were paid to the growth of these tusks. To encourage growth and perfect shape the boars were tethered up for years to prevent them grinding their tusks down. In many instances the tusks not only made a complete circle, but re-entered the jaw again, passing right through the bone and out again. In this island a man's rank and social position were determined by the number of pigs he owned, and the number of tusk boars he could afford to kill at a feast. There is, besides the ordinary kind, a rare species greatly prized. It is perfectly bald, with a head like a greyhound, and a smooth bluish skin. When a man wishes to " talk pig " with a friend he tows a favourite specimen along by a cord attached to a foreleg, whilst his wife follows behind with sections of bamboo containing water with which she continuously sprinkles the delicate animal's back lest he should be inconvenienced by the heat. With the Malikolo man his pigs rank higher than his wives or daughters. In fact the women are mere degraded drudges and slaves.

The bushmen had Snider rifles and bows with deadly poisoned arrows. The arrows were made of strong reed, tipped with about three inches of human bone, tapering off to a fine needle-point and steeped in decaying

human flesh, besides being plastered thickly with a composition of human flesh and vegetable poison. They also carried long spears, the points being carved human leg bones. Clubs, wooden swords, and tomahawks they had in plenty.

Some of the returns, or Kanakas returning to their homes, on board were anxiously waiting to hear what kind of reception they might expect from their fellow-islanders and relatives, who were waiting on the beach. Some of these expressed a desire to go on board and welcome the returns in person, to which no objection was made. But when Rannie arrived on board, to his great surprise he saw the only female return they had volubly haranguing the men. She had discarded her European dress, and was costumed merely in a belt from which was looped both in front and behind a long roll of fancy print and calico, so draped as to leave her untrammelled in the event of fight or flight. A second belt round her waist contained a loaded revolver and about fifty rounds of cartridges, while over her shoulder and across her breast she carried a bandolier of cartridges for the Snider rifle which she was nursing in the hollow of her left arm. An emancipated Malikolo woman! She told the story of her grievance to Rannie and it was romantic enough to satisfy anyone.

She was the daughter of a chief, and on his death was sold to a headman of mature years who wished to make her one of his wives. But she would have none of him; her fancy was fixed on a younger lover, with whom she arranged to elope to Australia by the aid of a recruiting vessel. Her owner disapproved of this and with his brother and some followers set out in pursuit of the erring couple. The chase continued for a week, when they were overtaken and shots were fired, and the young lover was wounded in the side. They struggled on, however, but the young man grew weak from loss of

blood, and they were brought to bay. The pursuers came on, the chief leading, followed by his brother. The young woman waited until her would-be husband was within sure range, then shot him dead, the lover at the same time shooting the brother, but a moment afterwards he was himself struck with a bullet from one of the other pursuers, and fell with a groan. The young woman bounded away, for she could do no more, and making her way to the shore, saw, to her great joy, a vessel lying at anchor. Wading breast-high into the water she waved a branch, and was taken on board the vessel, one from Queensland, where she was conveyed and lived for some years.

Next morning the boat was manned and the returns rowed ashore. Into the same boat stepped the young Amazon, still holding her rifle. On reaching the shore she walked up to a crowd of women huddled together like sheep, and demanded to know the fate of her lover. They made evasive and contradictory replies, so, finally coming to the conclusion that she was being deceived, she opened the floodgates of her wrath and poured on them, both women and men, a torrent of vituperation and invective which so damped the spirit of the meeting that it was evident no business could be done so long as a Malikolo young woman holding such very advanced ideas trod the deck of the *Emily*. The vessel cruised about the neighbourhood for some days, but whenever it was known that the " fighting lady " was on board no recruits were obtained. She was eventually landed at Malo by her own choice, as she had " chummed " in with a return, a native of that island.

At Valpay, where they landed the last of the returns, Rannie received a pressing invitation to join in a pig-hunt which had been arranged before the arrival of the vessel, and next morning, equipped with a rifle and short sword-bayonet he joined the pig-hunters in the

MALAYTA SPEARMAN

The spears are barbed, and are used both in throwing and thrusting. The armlets and nose ring are cut from the gigantic clam-shell. Round his forehead is a string of white cowrie-shells. The broad belt round his waist is native shell money woven together. (J. W. Beattie, Hobart.)

village. The party consisted of about fifty men and boys, some of whom had rifles, and others carried bows and arrows. Many of them were also armed with spears, made of very hard wood, having for a butt a human thigh-bone. The majority carried a long-handled fighting tomahawk suspended from the right shoulder. A party of men and boys had gone in front to act as beaters. After a walk of about four or five miles the chief called a halt and ordered them to spread out in extended order along the hill-side. Then he fired his rifle as a signal to the beaters, and almost immediately the row started in the distance. Shots were fired, drums were beaten, and conch shells blown; and howling, yelling, and whooping, on came the beaters. Then in a few minutes the sound was heard as of the rushing of a storm, and soon the grunting and snorting and squealing of a great mob of swine.

Rannie made for a large tree, and was soon astride of a huge bough about four feet from the ground. The pigs were soon around, under, and racing past the tree. Pigs seemed everywhere. The noise and din were deafening. Men started at first shooting in all directions, while from his vantage post Rannie kept pumping lead into the mob of swine with his Winchester rifle. After a time the natives dropped their guns, and with their long-handled tomahawks started to slash and hamstring the pigs as they attempted to rush by. The antics of the natives were most amusing, and their agility in leaping about and using their tomahawks was wonderful. It often caused roars of laughter as, in leaping in order to avoid one pig a man would frequently drop right on the top of another.

When the rush was nearly over a tremendous big-tusk boar brought up the rear, heroically trying to defend his herd. Some of the beaters had wounded him, as bloody froth was falling from his mouth. He kept

stopping and grunting and snarling in their direction. When he was close to the tree in which Rannie was perched, a native ran in and tried to spear him, but only wounded him and made him more infuriated. With a savage grunt he turned on the native and charged him, and he, poor unfortunate, in his endeavour to get out of the way, tripped over one of the roots of the tree and fell. In a second the boar was upon him, and with one of his great tusks ripped him open. The impetus with which he was going carried the brute a few yards past where the man lay. He turned and was coming back to renew the attack when a well-planted bullet from Rannie's Winchester brought him down. The poor man was a ghastly sight and had a wound about seven or eight inches in length. His comrades soon covered the wound with a mud plaster, and carried him down to the village on an improvised litter, where Rannie sewed up the wound. He eventually recovered.

After leaving Valpay the *Flora* touched at several islands and cast anchor at Santa Cruz, or Nitendi, one of the Santa Cruz Islands. The vessel was immediately surrounded by canoes, and the natives were soon swarming all over the decks, scaring the recruits and returns into the rigging with any weapon they could lay hands on. The natives of this island have always borne an evil reputation for theft and treachery, so Rannie ordered the crew to cease ship's work and station themselves in the best positions for defence. So persistent was their pilfering and such a menace was their number, and so great was the uproar that all gave a sigh of relief when the *Flora* heaved anchor and the last canoe was left behind. It is a curious fact that although the natives of Santa Cruz are, to all appearance, so physically well made and fit, when transported to Queensland they died off in such numbers that the Government prohibited recruiting from that island.

Leaving Santa Cruz the *Flora* shaped her course for Malayta, one of the Solomon group, and most notorious for the blood-thirstiness of its natives, and cast anchor in Qui Harbour, just sighting at a distance the *Young Dick* sailing out of Sinerago Harbour. They were soon boarded by natives, who informed Rannie that the same morning the *Young Dick* had been attacked by natives, and that there had been a big fight in which some white men and many blacks had been killed. One man who spoke some English said that by now the Sinerago men would regret their action, and that no doubt many would wish to leave the island to escape the probable visit of a man-of-war, and offered himself as interpreter.

After cautioning the captain to be on his guard, and having armed the vessel's crew with Santa Cruz bows and poisoned arrows, the boats were manned and set out for Sinerago. The interpreter who accompanied the crews seemed nervous and excited, and roused Rannie's suspicions, so he was informed that the slightest treacherous movement on his part would result in a bullet being put through him. At Sinerago they saw a number of men under the trees at the mouth of the creek, but unaccompanied by women or children—always a sign of hostility. The recruiter did not like the look of things, and asked the interpreter his opinion. He advised a retreat as he said the men would fight, but, against his wishes, Rannie backed his boat into the shore, determined to have an interview with the natives. He informed them that they were recruiting for Queensland. Their spokesman then said that he thought several of his countrymen wished to go to Queensland, and turning round to his companions began talking to them in an undertone. Just then Rannie noticed that one of the natives wore a long gold chain with a pendant locket which he at once recognised as belonging to an intimate friend of his, Popham by name. At that moment the

interpreter shouted "Look out!" and threw himself to the bottom of the boat. All ducked in time to escape a flight of arrows fired from a crowd of savages under a large tree. Immediately all the rifles were emptied into the crowd, and both crews leapt ashore and opened fire on the natives, who were now flying helter-skelter for the scrub. Rannie recovered the chain, which he supposed had been stolen in the attack on the *Young Dick*, but he subsequently learnt the particulars of the tragedy which accompanied the theft. There was obviously no chance now of doing any recruiting in that quarter, so the boats returned to the ship, and the interpreter was dismissed with a substantial present, evidently glad to get away with a whole skin, for there was no doubt he was deep in the plot.

Next day a fine lot of young fellows came on board and expressed their desire to recruit for Queensland, the only stipulation being that the vessel should sail without delay, and to this no objection was made. Before leaving, Rannie discovered the reason of this desire to leave their native shores: these young men had been participators in the attack on the *Young Dick*, and had no desire to await the searching investigations which would surely follow, backed by the presence of a man-of-war, and so thought they would be safer in Queensland than in Sinerago.

The vessel next made for Urassey, the stronghold of the chief Quisooleæ. It is a small island surrounded by a high wall from eight to twelve feet in thickness, all built of stone. The only access to the island is gained by two narrow entrances wide enough only to admit the passage of a whale-boat or large canoe, and each of these entrances is guarded by a heavy portcullis. From this stronghold Quisooleæ sallied forth and periodically levied blackmail and harried the adjoining coasts. Quisooleæ's father had been a renegade and fugitive

from his own people, who had taken refuge on this small island of Urassey, and had gradually gathered around him all the outlaws he could get from any or every tribe. They fortified themselves on this small island, and when they had gained sufficient strength in numbers, they started on a career of pillage, piracy, and murder. Their numbers increased so rapidly that in a very short space of time Quisooleæ could lead such a following that he was recognised as the most powerful and dreaded chieftain on or around Malayta. These daring robbers and marauders soon found wives, and the breeding of cannibal robbers and pirates went on apace at Urassey. No doubt these same savages were responsible for the loss of many a fine vessel bound for China and the East which has been posted " missing " at Lloyds. One of the recognised routes to China runs close past the east coast of Malayta, and dead calms there lasting for days are of frequent occurrence. A vessel becalmed there would become an easy prey to an attack from a number of the large war canoes of Malayta, each of them carrying from fifty to one hundred men. There is ample proof that such occurrences have happened.

After touching at Savo, the centre of the head-hunters of the Pacific, the *Flora* sailed for a village in Wanderer Bay where they had always been welcomed, but found a scene of desolation. No living beings were to be seen, but the headless corpses which littered the ground, and the charred remains of huts, showed that the head-hunters had been at their fiendish work ; even the coco-nut palms had been hacked down. As the vessel was leaving the bay they saw the *Fearless* and hove to. From her they learnt the particulars of the attack and brutal massacre on the *Young Dick* and of the death of Rannie's intimate friend, who was literally hacked to pieces.

The end of this voyage nearly proved the end of the

Flora, for she ran on a reef, but being evenly balanced, with deep water under her bows and stern they got a see-saw motion on her by running the recruits from one end to the other, so that she slid into deep water and arrived safely in port.

CHAPTER XXII

THE TREACHEROUS TRIBES OF OCEANIA

RANNIE'S next appointment was to the *Madeline*, a staunch little vessel, but an evil fate overtook her. After calling at several islands they reached Erromango, the scene of so many a martyr's sacrifice, but how changed from the time of the Rev. John Williams and the Gordons; treachery, blood-thirstiness, and vile superstition have yielded to the unremitting efforts and unsparing self-sacrifice of devoted Christian teachers, and the natives are now an industrious and law-abiding community. They were enabled to do a good turn for Dr. Robertson, while here. He wished to convey the material for a new church to the other side of the island, but with the means at his disposal this meant laborious transport over a mountain, or a voyage in small boats round a dangerous coast. The captain of the *Madeleine* at once offered to transport the material. But after beating about for four days they were driven back by a storm, much to the Doctor's regret. The second attempt, however, proved successful, and the goods were all safely delivered.

Tongoa, one of the New Hebrides group, was reached on a pleasant April evening; the anchor was dropped, the sky was scanned, and all seemed calm and secure. But about midnight the captain rushed into Rannie's cabin and shouted to him to come on deck as they were in the midst of a hurricane. No sooner had Rannie reached the deck than the vessel struck, stern first, with a terrific crash which wrenched the wheel and the steering-gear from the rudder-post and sent them

smashing through the wall of his cabin on to the bunk which he had just vacated. The scene was appalling. Great seas tumbled over the starboard bulwarks, and soon shattered them to matchwood. The native passengers, up to their waists in water, hung on to anything they could seize. The rain came down in sheets which almost obliterated everything beyond a foot or two; blinding flashes of lightning split the darkness while the thunder kept up a constant deafening roar. The flashes revealed land about a hundred yards away with a chaotic mass of spuming water leaping and churning in between. The captain called for a volunteer to carry a line ashore. A native named McKenzie responded, and holding the line in his hand he leaped in, but soon the strain on the rope relaxed and it was drawn back. Rannie next offered his services, and his own native servant, a stalwart merry young man, known as Fathead, together with a recruit, offered to accompany him. A few valuables belonging to the captain and the mate were fastened round his waist, to be forwarded to their wives in case the vessel went to pieces before the rope could be secured. The line was fastened to the centre of a broom-stick, and the three men plunged overboard. The struggle was awful, but the final one when the beach was reached was the worst. Where the surf thundered on the sand Rannie could retain his hold no longer, and he signed to his companions to leave him and get ashore if they could; his senses began to leave him; he was dashed more than once on the steep sandy beach, vainly endeavouring to dig his fingers and toes into the sand, but the backwash seized him each time and swept him out choking and almost insensible among the breakers. The fight was nearing an end when strong hands seized him, and he was dragged clear of the water, and he heard the voice of Fathead exclaiming, "You no dead yet, Government," and a burst of hearty laughter.

WOMAN OF PORT ADAM, MALAYTA, RETURNING FROM MARKET

She is adorned with bracelets, armlets, necklets, ear-rings, and nose-skewer, but her toilet boasts of nothing more. (J. W. Beattie, Hobart.)

The two men had made the line fast to the root of a tree, and then had come to search for him. As they hauled on the line they could hear above the din of the storm the cheers of those on board. The life-line proper was secured and the passengers were rapidly pulled ashore. But when half of them had been transferred a huge sea lifted the vessel clear over the reef on which she had struck, and crashed her down close to the shore. But although this rendered the task of saving the others much easier it quite destroyed all hope of saving the vessel. They discovered that they had been wrecked below the Mission Station on Tongoa. This, however, was no guarantee that they would not be attacked by natives, so, when the morning broke, they set to work with a will to get ashore what stores they could to form a barricade against a possible attack. The natives proved friendly, for Rannie had once done them a good turn, which they had not forgotten. The *Chance*, which was wrecked there a short time previously, had a different reception, for the missionary only with great difficulty succeeded in saving the lives of the crew.

After erecting tents and shelters it was arranged that the captain and the white crew should take the last remaining boat and try to get help from Port Sandwich, Malikolo Island, while Rannie and the others remained where they were. A week afterwards a French vessel arrived, and a satisfactory agreement was made by which the returns were to be landed on their own islands. The skipper, however, was an irascible, tyrannous and cruel man, and there was constant friction, so much so that Rannie refused to ratify the agreement with the French company to whom the vessel belonged, on their arrival at Port Sandwich. This brought an abject apology from the skipper, and a reformation in his manner so far as Rannie and his party were concerned. There was an eccentric character

named Martin, otherwise "Pirate" Martin, cruising about in command of a vessel, whose eccentricity reached the point of lawlessness, but whose good nature and kindly disposition secured him friends wherever he went. He was, moreover, a splendid shot with rifle and revolver. Happening to anchor in the same port the Frenchman had the temerity to insult "Pirate" Martin by hauling up a small pig to the main masthead with a whisky bottle tied to its neck. This drew Martin's fire, and a bullet hummed by the skipper's head, who lost no time in diving into his cabin. A second shot killed the pig, and a third broke the whisky bottle; then a hail came from Martin demanding that the skipper should be brought on deck. But that worthy had no desire to share with the pig the bullets from Martin's rifle, and yelled out orders from his cabin to clap on all sail and get out of Martin's range. It may be well to state that Martin had no desire to hurt the little Frenchman, but he had every desire to give him a good fright—and he succeeded.

Later on, during this voyage, Rannie had a severe attack of fever, and to do the little Frenchman justice he did the best he could for the patient. The vessel anchored at Port Sandwich and the skipper went ashore early in the morning, for Martin's ship was anchored in the same bay. Presently a cheery voice hailed the ship, and "Pirate" Martin made his appearance. He was shocked at Rannie's condition, and rummaged about trying to find proper "tucker," and incidentally appropriating such articles as took his fancy. Not finding what he wanted he bustled off to his own vessel and soon returned with meat extract and other suitable preparations and viands. These visits Martin repeated, and proved himself the soul of kindness and consideration. He and the skipper encountered each other on shore, when the Frenchman offered a profuse apology for the insult

given, but not before Martin had put a bullet through his pith helmet at thirty yards distance while he was talking to the French manager. Rannie was transferred to the shore, and thanks to Martin's unremitting care and kindness, and the attention shown him by the manager of the French company, he made a speedy return to health, and finally returned to Australia by the old cruiser *Diamond*, in charge of the whole ship's crew, boats' crews and recruits from the wreck of the *Madeleine*. Rannie had the proud satisfaction of knowing that of all that company with the exception of the man who tried to swim ashore with the line not a single life had been sacrificed, not even that of the ship's cat. Considering the dangers they had all passed through, this was indeed something to be proud of.

After several comparatively uneventful voyages Rannie was appointed to the *Para*, brig, under the command of a fine old man, who always alluded to himself as in the third person as James Cooper, or " The Old Man ; " he was eccentric, but highly respected, and had a habit of soliloquising quite audibly. Although enormous profits were made out of the labour traffic some of the vessels were so badly provisioned and fitted out by unscrupulous companies and their agents that many of them reached their destination in a starving condition, and not a few were obliged to return to the port of departure. It was quite a common practice to hand up goods over one side of a vessel, get them signed for, and bundle them over the other side. Against these malpractices Rannie set a determined front with the approbation of the Government. In this he was wholeheartedly backed by the officers of the *Para*.

The vessel set sail, and after touching at several places reached Buka Island, on the extreme north of Bougainville. By some clerical error thirty returns were booked for this island, whereas only two belonged to it. The

mistake was pointed out to the "Old Man," but he obstinately refused to alter his course to accommodate the other twenty-eight, and so only two returns were landed, the others naturally objecting to being marooned on an unknown shore. The warriors here were a fine, wild, picturesque lot of men, and Rannie was anxious to obtain a photograph of a group. He set up his photographic apparatus and explained the working to the two returns, who in turn explained it, satisfactorily as Rannie thought, to the others; but to his surprise, when he placed his head under the focussing cloth, he saw nothing but their heels in the air, and the after parts of a mob of naked savages in full flight for the bush.

He was so surprised and absorbed in the strangely ludicrous scene on the focussing plate of the camera that it was some time before he could recover himself to pay attention to the shouts of his men to look after his own safety and seek the shelter of the boats. Instead of doing this he came from under the cloth, and held up his hands to the natives as a sign that he meant them no harm. When the savages took fright and made for the bush, the two returns rushed down to the boats, afraid of the next move of their countrymen. After a while they came back, and very reluctantly their savage countrymen ventured cautiously down from the scrub. But no persuasion of any sort could again induce them to line up in front of the camera, which they thought was a gun of some sort or else an infernal machine.

Leaving Buka they landed returns at New Ireland. The weapons used by the natives are the spear, club, tomahawk and sling, but not the bow and arrow. They are wonderfully adept with the sling, hitting the mark at long distances. The clubs vary; some are heavy and blunt like an elongated baton, others are broad and flat with sharp edges, while some have heavy balls at the head from which protrude sharp spikes two inches long.

But the favourite weapon is the steel-headed tomahawk, into which is securely and neatly fixed a shaft of hard wood, beautifully polished, measuring from three and a half to four feet long. Their costume is conspicuous by its absence, unless a slight coating of paint or lime might be termed a costume. The patterns vary according to fancy; some had the bones traced out in white lime, so that they presented the appearance of animated skeletons, but the style most in vogue appeared to be a five-fingered design, and might have been applied by a hand smeared with lime. The coiffure is elaborate; each lock of hair is carefully straightened out, and a mixture of coco-nut oil and red clay or betel-nut is rubbed in, which gives it a fine brick-red colour, and is trained in thin corkscrew curls to fall over the forehead, and down the cheeks and neck. The teeth are stained black with a preparation of burnt iron-pyrites; and to complete his costume, instead of a blackthorn the "New" Ireland dandy carries a sharp tomahawk to convince an opponent and emphasise an argument.

At a place named Rahaloo, a few miles north of Cape Santa Maria, two women plunged into the water and tried to climb into the mate's boat, but he would have none of them. They, however, continued to follow the boat until their own men swam after them and forcibly hauled them out. Then peace was changed to strife. Some of the men would have killed the women, but others protected them. A fight ensued. Tomahawks and spears were brought into play, and the utmost excitement prevailed for some time, which infected even the boats' crews. But peacemakers intervened and saved the two women, though both were badly hurt

Betel-nut chewing is universal in most Pacific Islands, but in the Santa Cruz group it appears to have a sudden check, while in the Torres, Banks and New

Hebrides groups it is quite unknown. But in these places the one vice is supplanted by another, that of "Khava," an intoxicating preparation which appears to affect, not the brain, but the limbs, completely paralysing them for the time being.

Beautifully-modelled canoes, capable of holding from ten to fifty persons, are built by these people. After the seasoned planks are adzed, scraped, and smoothed with sand they are bound together by sinnet through holes bored in the wood, and caulked with a preparation of pitch which sets as hard as cement.

Further north lies the Gerrit Denny group, of which the scenery in its beauty defies description; the natives are apparently quiet and friendly, but not to be trusted, while at one of the villages called Nolam, Rannie was called upon to adjudicate upon a knotty point. Two returns, a man and a woman, had married while in Queensland, and a child had been born. On reaching their native region they must part for ever, for although their native places were separated by only a small expanse of sea, each would be killed and eaten by the relatives of the other. But who was to take the child? Rannie decided that the woman was the natural guardian, but the father vowed he would gain possession of the child. On the day of departure the vessel was surrounded by canoes, and each member of the crew was occupied with the work of getting the vessel under way, when a commotion on the port side of the ship attracted Rannie's attention, and he saw the father making for the bulwarks with the child in his arms, while his friends covered his retreat. But the desperate woman broke through the ring, and seizing the child buried her sheath-knife between the ribs of the man, then took refuge in the cabin. His comrades hurried the wounded man into the canoe and made for the shore. The incident passed without much comment, although some of the men wished to land the

woman and child, which would indeed have ended the matter so far as she was concerned.

One of the principal traders told Rannie that in this part of New Ireland the natives assemble once a year in thousands from many parts of the country and engage in a battle or several battles lasting over days. Some are killed, but not many. The vanquished return home to be upbraided by those who were left at home, while the victors remain to eat the bodies of the few who have been killed, and to relate the deeds of valour they have individually performed.

The last of the returns for these parts was landed at a village in the St. George's Channel, and the recruiter bought a large boar pig, which was lashed to a sapling by its fore and hind legs. It was deposited on the deck and forgotten. Some time elapsed, when suddenly there was a commotion on deck, the natives scattering and making for places of safety, for the boar had broken his lashings. Rannie and some others climbed on the rail, but not so the poor "Old Man." He was caught from behind in the alley-way between the deck-house and the bulwarks. His legs went from under him, and he sat down on the pig's back, and was carried some distance. The pig then paid attention to the man at the wheel, who, promptly leaving the ship to steer her own course, made a bound for the top of the deck-house. The "Old Man" made tracks for the general cabin, but the pig, catching sight of him, continued the chase. When Rannie went to the rescue, revolver in hand, he found the pig with his fore-feet on the table snorting applause to the captain as he danced about the liveliest sailors' hornpipe of his life, all the time shouting for someone to come and relieve him by shooting the unclean beast. The pig made for Rannie, who eluded the charge by jumping again on the rail, and the wild-boar hunt on the *Para's* deck came to an end, as he grunted his last with

half a dozen bullets in his carcase, from about as many revolvers, fired from the strategical points of the rail and the roof of the deck-house. The "Old Man" had a nasty cut on his leg, but he was quite proud of his acrobatic feat in getting from the deck to the top of the cabin table in record time.

Owing to the obstinacy of the "Old Man" the vessel was steered too far from land, and so missed the influence of the land breezes, and for an entire month they drifted about at the mercy of the currents, varying the time by reading and catching sharks. After drifting into the neighbourhood of the Admiralty Islands, they reached the landing-place of the last batch of returns in the St. George's Channel. The "Old Man" had often been twitted by the younger men for his cautious avoidance of the shore, but now he showed his reckless disregard of all warnings by running the vessel full tilt on to the beach, where she fell over on her starboard side. Kedges with stout cables were taken out, but the ropes were cut by the reef, and the kedges lost. The natives gave friendly assistance, but without avail. The stores were landed under a guard, the ballast thrown overboard, and as much of the fresh water as could be spared was pumped out. Then the two whale-boats were lashed together, and on them was formed a deck or platform. On this the starboard anchor was lowered with as much chain as the boats would carry, and the anchor and gear dropped in deep water. When all was ready the final and mighty effort was made. Natives shoved the bows with poles from the land, canoes tugged at two lines, the windlass strained at the anchor chain, and the vessel started and moved, and finally, with a grating, tearing noise floated once again into deep water. Meantime the "Old Man" had been an indifferent spectator, with a look of placid resignation on his rubicund countenance, and when night fell he retired to his cabin leaving orders

that he should be called when the vessel floated! The stores were reshipped and under a steady breeze a course was set for Blanche Bay, New Britain, to take in ballast and make necessary repairs.

After leaving Blanche Bay, and touching at various islands, they reached the Bougainville Straits, where they experienced a remarkable phenomenon. While sailing over a very calm sea, rippled only by a gentle breeze, they were suddenly surrounded by a seething boiling sea that leaped in pyramid-shaped waves for hundreds of yards around, or as far as the eye could see. The surface of the sea had the appearance of a huge, boiling cauldron and the noise made by the breaking sea-bubbles was almost deafening. Some thought the phenomenon was caused by the meeting of opposing tides and currents, others that it arose from a submarine disturbance. Rannie has twice witnessed similar effects, which did not last in either case for more than an hour, but while it did last the ship had no steerage way, but twisted and turned and behaved in a most erratic manner.

At Simbu, a deeply laid plan to ambush the crew and kill them was engineered by a notoriously bad character named "Paddy." The plot was foiled, and "Paddy" was afterwards hanged by the commander of a man-of-war for the murder of a trader.

A month was spent in cruising along the coast of San Christoval, but the natives were very wild and shy. The men wore no clothing and the women but little. Both men and women had their legs and arms profusely decorated with bracelets, armlets, and bangles, while round their waists and necks they had belts and necklets made of native money. Their hair, which is allowed to grow very long, is frizzed out all round the head till it resembles a large mop. In this mop of hair they stick fancy combs, and wooden skewers inlaid with

mother-of-pearl. The men wear small white shells in a circlet round the forehead, while both men and women drill a hole through the tip of the nose, and in the hole they insert a long sharp spike made from the large clam-shell, which projects about four inches, with a point like a needle.

As a race, the natives of San Christoval are entirely different from the people of Guadalcanar. They are small, light-complexioned and resemble very closely the natives of Malayta. They are quite the Malay type. They have always been considered very treacherous, and have a mania for ambushes and for attacking people without the slightest warning. The Taboo house in Makira village is quite a show place. In it are kept the state and war canoes, and in it repose the bones of the illustrious dead. The bones of chief and headmen are preserved and placed inside the skin of some large fish which has been prepared and dried for the purpose—generally a porpoise or a shark. After this it is nicely painted and placed at rest on a shelf.

The state and war canoes are beautifully symmetrical models of what a fast sailing craft should be, and are handsomely decorated with pretty designs in mother-of-pearl, and festooned with tassels of variously dyed flax and grasses. The paddles are made from a light but very tough wood, and as they are sharpened to a point at the blade, they can be used as weapons of offence. They have hideous-looking demons stained into them in red and black dyes.

A practical joke quite destroyed all chance of recruiting from this quarter. Two old chiefs were being shown over the vessel; they expressed their wonder and admiration at everything, until, coming to the cannon, they expressed a desire to see it fired. When everything was ready some one mischievously suggested that they should stand on it as it was fired. They mounted the

cannon, and held on to each other's shoulders. When it was discharged there was an old bush chief lying on each side of it on his back with his feet in the air. They soon regained their feet, and with a yell and a bound they were over the side and swimming for the shore. When they reached it they bolted along the beach, every now and then looking over their shoulder and giving forth a yell. Their followers were not far behind them.

At Savo there is a breed of poultry which deposits eggs in the sand by thousands. The sand is fine and loose, and the young boys burrowed down three feet and more into it and brought up a large number. Each egg is about the size of a turkey's, and is a brownish colour. They are very palatable although somewhat stronger than a hen's egg in flavour. Casks and every available receptacle were used to store them in. The women cooked the eggs in a peculiar way in the hot springs. They doubled or sewed together some large banana or plantain leaves, and into them broke the eggs, and mixed with them grated coco-nut and a small quantity of salt water. This mixture they beat up with a stick until the ingredients were well mixed together. They then placed it in a boiling spring until it became as firm as cheese. Rannie frequently ate it and relished it well. This delicacy is generally made from twelve to eighteen inches in circumference, and from two to three feet long.

At intervals during his walks Rannie met with poles stuck in the ground with a human head or skull on the top of each. Savo has always been the chief centre in in those parts of the head-hunters. Every man he met was armed with the long-handled tomahawk, and had a basket-work shield on his left arm. They are of the same breed as the Guadalcanar men, mostly tall and very dark. Their heads are shaved and they wear wigs. Many of the wigs are made from their own hair, and bleached white with lime. Those who do not wear their

own hair have wigs made from a fine white flax. The men wear a loin-cloth, and the women short grass skirts, similar to those worn by the Ambrym women in the New Hebrides group.

The cruise having now been a long one it was decided to make for Queensland after touching at Guadalcanar, especially as the "Old Man" had had quite enough of the Labour Traffic. It was his first experience, and he solemnly vowed it should be his last.

[The information contained in these chapters has been derived from Mr. Douglas Rannie's book *My Adventures Among South Sea Cannibals*, by kind permission of the author.]

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